NATIONAL LIBRARY OF MEDICINE

NLM 00554729 3

Surgeon General's Office

LIBRARY.

ANNEX

Section,

No. 98375

Bliss, W W

WOMAN'S LIFE:

A Pen-Picture of

WOMAN'S FUNCTIONS, FRAILTIES, AND FOLLIES.

SURGEON GEN'LS OFFICE
98375.
LIBRARY.

BOSTON:
A. W. LOVERING.
1879.

WP
B649w
1879

Film no. 6769, no. 1

Entered according to Act of Congress, in the year 1869,
By W. W. BLISS, M.D.,
In the Clerk's Office of the District Court of the District of Massachusetts.

TO

MOTHERS, PARENTS,

AND

GUARDIANS

OF

YOUTHFUL INEXPERIENCE,

This Book

IS RESPECTFULLY DEDICATED.

CONTENTS.

PAGE

INTRODUCTORY 7

I.

PUBERTY 10

II.

MENSTRUATION 26

III.

INFLAMMATION OF THE MENSTRUAL ORGANS . . 56

IV.

SYMPTOMS 103

V.

CAUSES 146

VI.

AMENORRHŒAL TYPE 282

VII.

MENORRHAGIC TYPE 310

VIII.

DYSMENORRHŒAL TYPE . . . . . .

IX.

HYSTERICAL TYPE 3

X.

LEUCORRHŒAL TYPE 35

XI.

STERILITY 362

XII.

ABORTION 406

INTRODUCTORY.

NO good and wise man can possibly dispute, or be indifferent to, or unconcerned at, the increase of invalid females.

What is the cause? It is the march of civilization and over-refinement. It is the cultivation of the mental powers; of the sentiments and passions, the refinements, the indulgences, the luxuries, ay, even the character, of social intercourse. It is the want of light, pure air, proper food, and healthful exercise; the want of exercise in the open air, instead of being confined within doors, studying absurd accomplishments and romantic nonsense. It is the uninterrupted rounds of excitement consequent upon balls, parties, the opera, &c., with the liability to cold imposed by these amusements; protracted vigils sacrificed at the shrine of folly, luxury, and fashion; pampering with stimulating food; injuring by modes of dress which unduly compress most important viscera. It is the dissipations of society, the infatuation, bewilderment, and constant excitation, consequent upon fashionable life; the influence of luxury, indolence, sentimental reading, and card-tables; the perusal of prurient books, passion-stirring pictures, statues, &c., obtruding their seductions on the youthful imagination, provoking flights of vivid fancy, and arousing impulses of desire and yearnings after unknown gratifications. *It is the want of proper physical, moral, and mental training.*

This it is that is developing morbid influences that will entail years of mental, moral, and physical sufferings, and incapacitate woman for the great purposes of her existence. This it is that is developing a condition of system which no temperament or frame

of body can resist, — a debilitated vital power, an altered and impoverished state of the blood, manifesting itself in a vitiated condition of the secretions, accompanied by decay, or complete loss, of the enduring tone of the muscular and other solid tissues of the body. This it is that is weighing on woman like iron upon the feet of slaves, like shackles on the hands of victims.

We have but to turn our eyes, and we see the truth of this on every side. We see it among women of professed refinement. We see it among those tasting the joys of plenty. We see it among those who have been idolized for their beauty, and we see it among those in the humble walks of life. We do not see it, though, among the untutored inhabitants of the forests, into whose glades the light of civilization has never dawned, and over whose hills and mountains the arts and sciences, the refinements and graces, have not traversed. Wonder as we may, the stern reality is nakedly before us, that women among the rude inhabitants of earth, educated only by Nature as she instructs in the vast volume of her wisdom, are physically and morally far above the level of the shattered condition of bodies and minds schooled in the wrongs of civilized society.

A Nero playing on his fiddle in view of a city in flames is a less frightful picture than that of the physician basking in the serenity of his own indolence, when that indolence is the cause of ignorance, and ignorance the cause of his non-success in ascertaining the true seat of a morbid process that is not only defeating the great purposes of woman's existence, but rendering her a victim to mental, moral, and physical suffering that may attend her to the grave.

To be in error one's self is a misfortune: if it be such an error as mightily affects the well-being, health, and happiness of those intrusted to our care and treatment, it is a very grievous misfortune. If, however, error arises from wilful blindness, sheer indolence, or positive incapacity and stupidity, and it be such an error as to compromise the health and happiness of those, who, requiring help, and deceived as to our endowments by the false lights that we have held up, have intrusted themselves to our care and treatment, it is a crime, a most cruel triumph over good faith, a barbarous wrong; and it is the kind of wrong which we

would most justly and keenly resent, could we be sensible of its being put on ourselves.

On medicine, as on all other subjects, there is an honest difference of opinion. In fact, it is through differences of opinion that truth is arrived at: and the highest honor we can pay to truth is our desire to have it sifted and analyzed; and, if it be truth, it will abide all tests, and, like genuine gold, come out purer from the fiercer fire. There are those, however, who, because an idea does not emanate from certain high sources, or come straight down from the professor's chair, instead of examining into it, and giving it thought and consideration, and evincing a disposition of meekness, humility, and teachableness, as common sense would naturally induce them to do, rise up in bristling hostility against it. And why? Not from any honest difference of opinion; not from any false reasoning, so far as they may see; but because it contradicts their ignorance, their selfishness, their popularity, their worldly-minded ambition, their dogmatical assumptions; and because they are so puffed up with a second-hand distinction, that they cannot stoop to learn any thing that does not come straight down from some great high priest in medicine; and they seek to augment this voluntary contempt of things, which they have not the courage to examine nor the manhood to overthrow, by an undue assumption of professional pride and professional exclusiveness.

"When pain and anguish wring the brow;" when months, *years*, of pain and suffering have been, still are, experienced; when forms have wasted and become weak; when debility and exhaustion have supervened, and the constitution has become undermined and broken, and the patient dispirited, despairing, and scarcely to be recognized, — what does she seek, and what does she require? Not suppression of inquiry, not imposture and cunning, not ignorance and stupidity, but medical knowledge and skill, — a knowledge that will ferret out the *true seat and primary cause* of her infirmity, and a skill that will lead to judicious application of proper remedies.

To women and of woman we write. The object aimed at is to produce a volume which may contain information advantageous, and not unacceptable, to her. We seek to throw a ray of light

over the diseases peculiar to her sex, — their sources, symptoms, results, and the true indications of treatment. We seek to point out *one* among the many ills — the chief one — that destroy the bloom, beauty, vigor, health, and life of thousands of females yearly. We seek to point out the multiplied symptoms emanating from this morbid process, — symptoms that have so often given rise to ridiculous notions of liver-disease, dyspepsia, consumption, pleurisy, heart-disease, lead-disease, rheumatism, neuralgia, kidney-complaint, womb-disease, spinal irritation, spinal disease, &c., but which, having ordinarily one common origin, vanish like the dew before the rising sun, if the single point of diseased action, the cause, be removed. We seek to trace out the follies of youthful inexperience, the evil influences to which young women are subjected, and the trials and sufferings inseparable from a contest with disease. "In their journey from youth to womanhood, paths of pleasure appear on every side. Happiness surrounds them, and they are eager for its enjoyments. But indiscriminate fruition too often leads to folly, pain, and suffering. They are creatures of the moment. They pursue no settled course, but follow the stream of life in all its windings, and commit themselves to the mercy of the winds." They need an instructor. We seek to advise them. We seek to show what experience has taught us. We give to woman the benefit of that experience.

In discoursing upon diseases of females for the eye of the general reader, the task is both a difficult and a delicate one; and our pen, at the very threshold, tarries in suspense above the paper, awaiting the descent of the right words in their proper places. For to be of service, to benefit, to warn of danger, *truth must be spoken*, but with a delicacy of diction, a discreet choice of words, and a veiled manner of expression, that will wend its way to the understanding without wounding sensibility, or causing a blush to mantle the cheek of the most fastidious.

In pursuing the more delicate inquiries, — inquiries indispensably necessary to the full understanding and inseparably connected with our subject, — we shall strive to the utmost to wend our way, making choice of language and modes of expression calculated to impart the idea we propose to communicate, without awakening any feelings which may disturb the chaste sobriety of

physiological research. We would, however, remind the reader how almost impossible it is to tread the path that we have set out upon, and not seem to violate those conventional forms of language to which American readers are mostly accustomed.

We are aware that a portion of the community condemn all works of a physiological character addressed to any other than the profession; but we certainly fail to see any impropriety in instructing woman as regards her organization and the laws of her being, moral and physical, which she must obey, or of her manifold infirmities, their origin, accompaniments, and their results. We fail to see any impropriety in imparting such knowledge as is intimately connected with the health and well-being of those who are mothers, not only of individuals, but of nations; and who, by their strength and vigor of constitution, by their physical and moral perfection, transmit highly-developed physical mental and moral qualities to their offspring, or, if weakened and enervated by excesses or disease, their soul-and-body-destroying legacy to an unoffending progeny. We fail to see any impropriety in imparting such knowledge as is intimately connected with the health, well-being, and future usefulness of their offspring, — that subjecting the tender and half-grown brains of their daughters to prolonged mental exertion in educational pursuits for the purpose of securing to them either pre-eminence in intellectual society, or an advantageous matrimonial alliance, does not only not advance them in those attainments necessary either to an intellectual standing in society, or to become companions of intellectual men, but renders them insipid, superficial, ignorant, full of terms of many kinds of knowledge, and wearied and disgusted with all.

If it be wise to suppress all inquiry, or shut out from woman all knowledge of the structure of the human frame, and those laws that regulate its functions in health and disease, she certainly stands but a feeble chance of guarding against and escaping the many ills peculiar to her sex; of properly appreciating the advice of or co-operating with her medical adviser; or of discriminating between true merit and unblushing impudence and pretension.

If it be wise to conceal from woman that knowledge, whether deduced from observation or science, or both, which enables her to avail herself, in her choice of a companion, of one whose offspring shall not inherit insanity, imbecility, bodily deformity, or other

hereditary diseases; if it be wise to conceal from her that infirmities and sins of the parents are literally visited upon the children unto the third and fourth generations; that beauty, health, and sound intellect, in children, are inseparably connected with a perfect physical organization on the part of the parents; that similitude of temperament, and marriages among blood-relations, tend to the degeneracy of the offspring, — future generations certainly will have ample reason for cursing the wisdom, the religion, the reason, and the common sense, of their progenitors.

We are satisfied that a little reflection will lead all to acknowledge, that unless woman be properly instructed as regards her organization and those laws that regulate its functions, and of the great purposes of her existence and the causes that defeat them, she will continue to be, as she long has been, a poor, unsubstantial shadow, trembling at the slightest breeze of accident, and subject to a multiplicity of ills; transmitting to her offspring weakened, enervated, and other disastrous conditions of system, which will prove the curse and bane of their entire existence. And we are also satisfied, that unless she throws aside absurd prejudices that so long have bound her hand and foot, and thinks and examines for herself, instead of handing herself over to her medical adviser to think for her, and decide questions which she alone can solve, — questions which are peculiar to her sex, and a mystery to man, and by him never to be resolved by any objective reasoning; unless she discards those idolized, but empty, fallacious, and pernicious notions, that spirit is infinitely higher and nobler than matter, that the spiritual part of our being is vastly of more importance than the animal, and that the moral and intellectual enjoyments should be exalted over all others, and adopts the more philosophical and only true idea, that reverence for the human body itself is as grand an object for enthusiasm as the spiritual part, that laws of health claim the *highest* place in man's respect, that a virtuous, *physical* life is as much to be proud of as a well-spent *moral* one, and that Nature allows no exaltation of the moral over the sexual enjoyments, or any departure from her plans with impunity, — she will continue to be subject to the multiplied ills peculiar to her sex.

There is nothing from which women in the present day suffer more than from the ignorance in which they are content to pass their lives as regards the structure of the human body and its laws.

For it they have not a single thought, nor the slightest reverence, and are, it would seem, wholly indifferent as to its fate. Physical laws, as little reverenced as understood, are broken without even the remotest idea that the culpability is just as great as though they were moral ones. The importance and universality in the constitution of the *great law of normal and sufficient exercise*, and of the most disastrous consequences which ensue when disregarded, are wholly unknown and uncared for. They may, perhaps, have some crude notions that the body must, in order to be vigorous and healthy, have a certain amount of exercise; but how little realization have they of the extent of the application of this great physiological law! How little aware are they, and mankind generally, that the law applies to every part of the body,—as much to one organ as another; that it applies to *all* organs; and that *every* several member must, in order to be vigorous and healthy, have a due amount of exercise, and that of the normal kind! They may understand that the eye, in order to retain its normal condition, must have light, and the limbs motion, and the intellect reflection. How little, however, do they realize that the sexual organs are subject to precisely the same law as other organs of the body, and that the appetites and passions require their normal gratification, else the sexual system infallibly becomes enfeebled and diseased! How little do they realize that each and every organ was designed for a purpose, and their due exercise necessary to the harmonious workings of the economy; that one can be neglected without becoming enfeebled, and, in fact, without suffering the same injurious consequences that follow excessive use! Nature is all-perfect. She shows no partiality. Her laws apply to no single organ, or sets of organs, but to *all* parts of the economy, the generative as well as all others; and here we shall see the duty and necessity of their having due exercise from the time of their maturity, which takes place at puberty, till that of their decline.

There is no subject so vitally important, so far as concerns health, happiness, morals, and political economy, and on which man is more profoundly ignorant, than the human body generally, and of her own sexual organs more particularly, and the natural laws which preside over them. These organs, after their maturity, have a *dominant influence over the entire system.* Yet ignorance and false ideas have shrouded them in mystery and com-

cealment; and why? They do not differ from the rest of her humanity. They are regarded with feelings of shame; and a knowledge of their laws, and of her passions and appetites, is avoided. The latter especially, and the reciprocal inclinations that Nature has given the sexes, are viewed in a most degrading light. The caprice of mankind has affixed a shame to them. Nature, though, permits no degradation of one part below another. She demands that all parts of the body be equally reverenced; that the harmony of the economy, where all parts are equally important, be not destroyed. She demands that *all the organs of the body and their functions have their due exercise and normal gratification.* Any violation of a natural law carries with it its inevitable penalty.

Woman should understand these things. It is essentiall requisite that she should perfect herself in a knowledge of th economy generally, and especially of the sexual part of her systen and the laws that preside over it. Nature has given her no organ wliich she intended to be shrouded in mystery and concealmen She should study and reason upon their diseases, and the causes th produce them, or the consequences will not cease to be *ruinous a destructive in the extreme.* And finally, instead of avoiding a mat so vitally important as her passions and appetites, she should stu and analyze them; for they are closely allied to health and ha piness. *Passion* is, as we shall endeavor hereafter to show, a pri ciple deeply implanted within us for wise purposes. It persi vehemently during youth and adult age. It may not be igno or opposed. Its force is of immense power, which, if imprison and not permitted to discharge or expend itself through its nat and legitimate outlet, as in those unmarried and chaste, falls disastrous consequences upon that portion of the economy least able to ward off its disturbing force; and amenorr chlorosis, dysmenorrhœa, leucorrhœa, hysteria, &c., are the sequences.

Disease and misery follow close upon ignorance and myster and, from the sad neglect of that aid which a knowledge of t nature and laws of the sexual organs would have afforded the thousands and millions of women have spent years of mise have languished and died, and all through mistaken notions th those organs and their functions were not to be studied, but ratl avoided.

To woman we submit our labors; and if she, who is the o

most vitally interested in this matter, acquit us of any impropriety in striving to instruct her as regards the wonderful functions of her curiously-constructed organs, we care not a rush for the false delicacy and perverted sensibility of the balance of mankind. "To the pure all things are pure."

The task that we have set out upon is to us an awkward and delicate one; and its object is, we know, open to criticism: but, nevertheless, we are honest, conscientious, and sincere, the truth of which, we believe, will be fully recognized by every candid, fair-judging mind, and every seeker after truth; by all save those who see no object of enthusiasm in the cultivation of the physical being, and who, regarding the spiritual and intellectual as the only truly glorious part of our humanity, and worthy of our greatest reverence and profoundest consideration, would elevate moral far above physical excellences, and beauty and power of mind far above beauty of form and physical strength and activity; by all save those who have no reverential eye for the sexual parts of the body, and would hide them in mystery and shame; by all save those who condemn as "unprofessional" all attempts to instruct, or extend to men generally that knowledge which is so closely allied to their well-being, prosperity, and happiness; save those who cling with ridiculous tenacity to every species of form and etiquette and professional usage, as though these things were matters of the highest moment; by all save those who may become alarmed lest a light be thrown that would affect their popularity, — alarmed lest patients go astray from their fold, and find what will induce them to keep away, lest a survey of other pastures may be found more inviting, and lest the desolation of their own fields should be appreciated and forsaken.

Before proceeding farther, we wish to admonish the reader, whether male or female, that, if this book has been taken up with the expectation of finding nothing but a rehash of those *tangible* matters that have been thousands of times before written upon, they will, as they proceed, find their mistake. We have no intention, that we may live with ease and satisfaction among men with whom we associate, to go no further than to copy what they have thought politic, or have been pleased to communicate to those beyond the pale of the profession. We shall copy their ideas and

imitate their sayings only just so far as they are in unison with our own belief; nor shall we stop there. That knowledge which they have refrained from imparting through fear of "public opinion," no matter how vastly important and beneficial it might have been, we shall not hesitate to consider so long as we believe it may prove serviceable. The object aimed at in this book is to consider whatever we may conceive to appertain to the relief of suffering humanity; not so much to please as to write what we consider to be truth and of utility. Too much circumspection has the effect of fostering ignorance and mystery. Reserve shuts up the only door through which the poor sufferer can hope to gain accurate notions of causes that are working his or her destruction. The reader must, then, be prepared to hear many singularities; and, if they should appear rather the offspring of a perverted imagination than just and scientific conclusions, he or she is at liberty to rate them accordingly. Every one has his own manner of thinking; and — *we have ours.*

Let us also hasten to add, that if the reader be one of the many whose false delicacy and perverted sensibility prevent him or her from stepping beyond the beaten path of custom to study and reason in a natural and open manner upon a subject which *we* believe to be of vast importance, but which may *seem*, on first impressions, to be opposed to generally-entertained notions of morality, or one whose prejudices are so strong as to leave no relish for looking facts squarely in the face, or to whom truth is unacceptable, it is time that the book be closed and laid aside, and that we part company; for to all such this book will be of no profit.

To those, however, who, like ourself, have deliberated upon human happiness, and the causes that oppose it; to those who have striven to ascertain the true sources of woman's multiplicity of infirmities, and who have ever been diligent in seeking to ameliorate her sufferings, — are these pages addressed; and we call on them, for the sake of suffering humanity, to read with diligence and care, to deliberate uninfluenced by preconceptions, and to be governed by the decrees of wisdom; and we believe we may safely promise, that, if the following pages are read in the proper spirit, many valuable lessons, to say the least, may be drawn from its counsel upon subjects intimately connected with the health, happiness, and well-being of the female portion of our race. And although there may be many who cannot at once con-

cur with us in *all* our views, yet we believe that all will become impressed with the importance and truth of what should be universally regarded as an axiom, — *that every violation of a natural law carries with it its inevitable penalty.*

It is unnecessary for us to observe that this book is not intended for youth, but for those of maturer years; more especially the married, parents, and those having the direction of youthful inexperience.

In the execution of the work, we shall avail ourself of good works having reference to the subject, and for several reasons: first, that it may be seen that we are supported in our views by eminent writers; second, because, in the more delicate inquiries, we shall prefer occasionally to use the language of others rather than our own; and, third, that we may lighten our labors. Whenever we employ the language of others, we shall mark the quotations by inverted commas *at its commencement and end only*, excepting where we abridge, enlarge, or alter their expression, or where we shall make use of and introduce here matter from another manuscript of ours in which may be paragraphs where proper credits are not given, and beyond our power to do so now. We make this statement to avoid the possibility of our being thought to claim that which may belong to others. We are ever ready to acknowledge the helps we borrow in writing, and confess freely that we are chiefly indebted to the books that lie strewn around us.

WOMAN,

AND HER

THIRTY YEARS' PILGRIMAGE.

I.

PUBERTY.

SEE you that loving, watchful care, and tender solicitude, those brooding instincts of the maternal heart, with which that mother is regarding the crimsoned and dimpled cheek of her first-born, with its sweet little face always so smiling and so beautiful? See you that purest passion sent from Heaven upon this sin-stained world (the love a mother bears her child), enduring, faithful, and intense; a perpetual sacrifice of self at the shrine of Nature; a deep mystery, which, when fathomed, causes the world to wonder at its depth and purity? Look into that young mother's heart; see how new feelings stimulate its pulsations; see it expanding, welling forth its very essence into the new life, which, though mysteriously parted from it, is dearer to it than ever. There is a whole universe of love, pure, unselfish, spotless love, love without limit, boundless as ocean, and deeper than its deepest caves, in that young mother's heart towards the little lump of half-animated clay that is *her* child. Does she not think that smile the brightest, that little kiss the sweetest, her eyes the clearest, the music of

her little voice the softest, that ever gladdened a mother's heart? And perhaps she is amusing herself by wishing she might always be "little," and never grow older, lest she should grow away from her, lest the whiteness of her spirit should become sullied by its contact with the world. Is she amusing herself by such fancies? If so, they will shine only for the moment, flash, and disappear; for she knows that her little babe is but the mould in which are to be formed the organs of WOMAN; that she will be for fourteen years employed in forming and perfecting her structure to fit it for its high and noble destiny as a reproducing agent; that, as she grows up from infancy and childhood, crises, great and important ones, will be passed, and faculties continually developed appropriate to particular stages of existence through which she is passing; that the last faculty she will acquire, the crown and glory of them all, will be at the period when she takes on the last great reproductive force, the period of *puberty*, the period when she becomes a WOMAN; "and possessed of a faculty that she is destined to enjoy for nearly half her lifetime, and then losing it again, she turns on the reverse of the path of life, and begins to descend to the bosom of the dust from whence she originally emerged." — *Meigs.*

PUBERTY. — This stage of existence passed, the crisis over, the great transformation accomplished, behold her now a

WOMAN, with a mind expanded, a heart awakened, vibrating with love, pouring forth a melody of affection, an intelligence unfolded, and her noble instincts awakened, so beautiful, so childlike, so confiding, with thoughts so unfettered, yet so delicate, so vigorous, and so original! Her wide, womanly pelvis has become suddenly and visibly increased. The great muscles of the thighs and hips have become duly and fully developed; and a more considerable deposit of fat, lending roundness to her limbs, and grace to her contour, reveals by serpentine undula-

tion all the elegance of a delicate, well-turned figure, whose every action is as graceful as the wave of a golden willow in the breeze. All that poets have ever dreamt of female perfection is to be found in that face and figure, — exquisite proportions, graceful symmetry of limbs, an assemblage of the most lovely features, and a complexion which seems to have been painted by the gods themselves; a brow slender, and of polished whiteness; hair bright, glossy, waving in natural beauty as though liquid gold were circulating in silky threads, and so long and so luxuriant, that its fair owner can almost infold herself in it like the Venus rising from the sea; lashes long and beautiful, edged with silver, fringe and adorn the azure of those large eyes that seem carved from an autumnal sky, and which, according to her feelings at the moment, ever varying in color, become as bright and soft as the blue of the beautiful violet, or brilliant and clear as the emerald, or dark and limpid green like that of the ocean, always transparent, however, deep, and beaming with intelligence, and pouring out a soul full of benevolence and great resolve upon all around; cheeks full, and united by soft undulations to a swelling neck that rivals a Grecian statue; lips like a thread of vermilion; teeth "like a flock of sheep that are even shorn, which come up from the washing;" a velvet skin, dazzling in whiteness, smooth and polished, so firm and so healthy in its texture; features delicate and regular as if fresh from the chisel of Praxiteles, and with such a perfect finish in every line and hue, that she seems, to fancy, fresh from the innermost chamber of some enchanted palace, "where no air of heaven could visit her cheek too roughly;" shoulders of snowy whiteness; limbs like columns of ivory, and hips of sculptural richness, white, firm, and lustrous as Pentelic marble. Tall, slender, graceful, bending like the flexible reed, with step and air possessing a bounding and sportive elasticity, and her every movement revelling in the voluptuous, tempered with grace, she

hardly appears to touch the ground, and at every motion seems ready to fly; ever in motion that enchants the senses, and with manners in every respect harmonizing with this ever-varying mien.

Now, a new and different lustre sparkles in her eyes while her young and busy fancy waves her wand, and scenes of every variety and beauty paint themselves upon her mind in the softest and brightest tints and colors, — scenes so various and delightful, so full of beautiful prospects and melodious sounds, that the fabled lute of Apollo, or the harp of Orpheus, are not more charming than is her ideal future, so full of beauty and majesty and splendor, so bright, so radiant with pure, unmixed delight, unfettered by obstacles or difficulties, that her eyes, before its boundless splendors, droop, and more promptly veil their brightness by downcast glances, or by a continual dreamy and thoughtful drooping of the eyelids above them. Her mind, her heart, her gentleness, her beauty, those exquisite features, so brilliant and bewitching, form a chain at once so binding and so agreeable, that the heart expands to a thousand sentiments of pleasure of which it had never before the remotest idea. The seal of perfection has been set, and she is indeed a

Woman. — But a little time ago, she found amusement, satisfaction, and delight in playing with her doll and her toys; but now her whole physical, intellectual, and moral forces have become changed, and the very foundation of her vanity, the moving springs of all her actions, are to engage man's admiration, to augment the flame of his love, and to become subject to the will of a master and lord, that she may by her gentleness, her docility, her submissiveness and patience, her keen sensibility, and her steady and pure and holy devotions and sacrifices, make herself the queen and arbitress of the fate of him she loves.

What has caused this wonderful transformation, — a transformation so great, so rapid, and important, and in

which soul and body expand with new powers and new feelings?

Hitherto, the OVARIES, immature and undeveloped, have remained quiescent; but now they have reached the period of their full growth and maturity. They become suddenly aroused into life, and by their supremacy of influence over the whole moral, mental, and physical constitution of woman, become ruler of her destiny. Over the whole physical, intellectual, and moral forces of woman, the OVARIES are rulers. Over all they cast the mantle of their lofty functions.

The overwhelming power of the ovaries, and their domination over the whole animal economy, will, we think, become apparent to every reflecting mind as we proceed.

Woman has beauty, gentleness, mien of an angel. Man cannot but admire her. With her beauty rests responsibility. She can make man happy and powerful. In form, he reigns in states and powers; but she rules in homes and hearts. She has power to enliven and embellish this world, and make it the way to heaven.

HER MISSION. — Is it to wear the crown that rests on her brow by political accident, where reigning man governs? No: she does not breathe that impure atmosphere of ambition which corrodes the heart and withers the beauty: her seat and her throne are by the hearth-stone; she reigns in the heart. Is it the forum, where her silver voice, so full of tenderness and sensibility, is to be heard? No: the forum is too angry for her. Is it to be an eloquent and impetuous orator, a bold, intrepid caviller, a specious sophist? Is it to be admitted to political rights and franchises, to command the bent ear of listening senates, to throw into the arena two-edged arguments with the rapidity of a thunder-bolt, to move like a tornado the agitated masses of a people tossed in the tempest of its own vehemence, to inspire with the power of her own passions, to be the sun to the sea of all thought and emotion

which rises and falls, is calm, and boils into billows, as she chooses? No: her voice, like the sighing of the evening breeze among the drooping willows, low and sweet, tender, soothing, caressing, and more musical than the harp of Orpheus, with its sweet under-song of the softest cadence, insinuating itself into the brain as an artless tune, and winding its way into the deepest heart like the melody of a magic incantation, is not for haranguing or brawling. What, then, is

Her Mission? — She is the mould in which humanity is to be cast, the nourisher and supporter of mankind. On her depend their growth and development, their strength and their beauty, their perfection or their deterioration. On her rest the health, activity, and vigor of constitutions, of families, and of nations. On her rest their enervation and deterioration. She is to be the helpmate of man, the greatest blessing and the most valuable possession that Heaven in this life can bestow, the assuager of his pangs, the solacer of his woe, the comforter of his soul, the sharer of his joys, the temperer and softener of his asperities, and the chief agent in the communication of his sublunary bliss. She is to be his best companion in prosperity, and his only friend in adversity; the most careful preserver of his health, and the kindest attendant on his sickness; the faithful adviser in distress, and the prudent manager of his domestic affairs. She is to be the partner of his life, the future mother of his children, to nurse, foster, and preside over their dawning intellects, and develop sentiments never to be eradicated. She is to be the sacred intercessor between them and her God, and the angel which is to accompany him and them into eternity. She is to command for him the respect of the world by setting the example herself. She is to hide his imperfections and infirmities by her silence, and lay a claim to the gratitude as well as the acknowledgment of his heart. She is to adorn her person in agreeable attire, and

enrich her mind with all useful knowledge, that his eye may be pleased while his soul is refreshed by new and unfolding beauties of her conversation. "After this manner, in the old time, the holy women who trusted in God adorned themselves, being in subjection unto their own husbands" (1 Pet. iii. 5). And finally, she is "to be discreet, chaste, a keeper at home, good, obedient to her husband, that the word of God be not blasphemed" (Tit. ii. 5).

WILL HER MISSION BE FULFILLED? — The question is an important one, and determined by her physical vigor, by her temperament, her idiosyncrasies, her constitution, condition, and her

DISEASES, — the most important of which, in the long catalogue of ills peculiar to her sex, and which seem to fall with malignant delight most heavily on those endowed with genius, amiability, and patience, and demanding a treatment adapted to the specialities of her constitution as a moral, a geniferous, gestative, and parturient creature, is **DISEASE OF THE MENSTRUAL ORGANS.**

SURGEON GEN'L'S OFFICE
LIBRARY.

MENSTRUATION.

BEFORE proceeding to the consideration of *Disease of the Menstrual Organs*, let us first ascertain, *What is menstruation? What are the organs of menstruation?*

WHAT IS MENSTRUATION?—Menstruation consists in a periodical discharge from the vagina* of a sanguinolent

* THE VAGINA is the canal, sometimes called vulvo-uterine canal, extending from the vulva orifice to the uterus, or womb, the neck of which it embraces. It is flattened from before backwards, the two walls lying in contact. In the virgin, its length is from four to six inches, and from an inch to an inch and a half transversely; but after childbearing these dimensions may be much exceeded. It is in contact with the bladder in front, and, posteriorly, with the rectum, or lower bowel; is slightly curved, with the concavity forward; and narrower at the middle than at the extremities. Its internal surface is covered by mucous membrane, which in the virgin is thrown into folds forming numerous closely-set transverse rugæ, which become larger, and sometimes take the form of little leaflets, towards the external orifice. These become gradually less prominent from sexual intercourse; and frequent parturition wholly obliterates them, leaving the surface entirely smooth.

The office of the vagina is to receive the male organ of intromission, and afford a lodgement for the male sexual element previous to its passing into the womb. The ejaculatory act of the male deposits the seminal fluid, not, as is supposed by many, into the mouth of the womb, but at the upper end of the canal, where its dilated extremity forms a pouch, and in such a position as to facilitate the introduction of that fluid into the uterus. Dr. *James Blundell* has described a peculiar movement which he observed in the vagina of the rabbit, and which serves to explain the mode of introduction of the seminal fluid into the uterus: "This canal during the heat is never at rest. It shortens, it lengthens, it changes continually in its circular dimensions; and when irritated, especially, will sometimes contract to one-third its quiescent diameter. In addition to this action, the vagina performs another," which "consists in the falling-down, as it were, of that part of the vagina which lies in the vicinity of the womb, so that it every now and then lays itself flatly over its orifice, as we would apply the hand over the mouth in an endeavor to stop it. How well adapted the whole of this movement is for the introduction of the semen at the opening it is needless to explain."

The vaginal canal also affords a passage to the menstrual fluid, and, in labor, transmits the fœtus.

Surrounding the vagina is a deposit of fat, which gives an elastic contraction

fluid, differing in no important particulars from blood circulating in vessels throughout the system, which is evolved from the mucous surface of the womb * *under the influence*

to the vulva; and from the large quantity of nerves distributed to its lower part, and the clitoris in particular, they are endowed with a high degree of sensibility, and are the chief seat of pleasure during sexual intercourse.

The orifice of the vagina presents, in its undistended state, the form of a vertical fissure in women who have long made use of sexual stimulus, and especially in those who have borne children; but, in those whose parts have never been penetrated by the male intromittent organ, it is more constricted and circular, and is further narrowed by a fold of the mucous membrane, which encircles or semi-encircles the orifice, and which is called the *hymen*. This fold of membrane is of variable degrees of thickness; being in some subjects very strong and tough, and with difficulty penetrated, and in others thin, and easily ruptured. The hymen is commonly ruptured on the occasion of a first complete intercourse; but its presence, although it raises a strong probability of virginity, yet affords no certain evidence upon that point; nor does its absence establish the contrary, for it may be broken by accident, or may become obliterated by the employment of vaginal injections, and in other like modes.

* THE WOMB, or uterus, is situated in the pelvis, between the bladder in front, and the rectum, or lower bowel, behind, and rests on the upper end of the vagina. In shape it has been compared to a flask, or a pear flattened. Its length is about two inches; breadth at upper or widest part an inch and a quarter, and an inch at its lower part or neck, and about an inch in its antero-posterior diameter. Its weight is from an ounce to an ounce and a half. The upper, or widest part, is called the *fundus*, and affords an attachment to the Fallopian tubes on either side. The middle portion is called *the body*, and the lower the *neck*, or *cervix uteri*, the extremity of which forms an attachment with and projects into the vagina from a quarter to a third of an inch. The end of the neck does not, as is commonly supposed, lie exactly at the upper extremity of the vaginal canal, but is "let in" to the upper wall of the vagina a little distance from its extremity: consequently the vaginal canal extends *beyond* the neck, and forms the little *pouch* already spoken of. The walls of the body of the womb are about a half-inch in thickness, and separated from each other by a scarcely appreciable cavity.

The womb attains its full development at puberty. Previous to this period, it remains but little altered from its infantine condition. It is a hollow organ; and its walls, as has been stated, are in close apposition internally, leaving only a small intermediate transverse space termed *the cavity* of the uterus. This cavity has three outlets, one on either side at its superior lateral borders, which are the orifices of the Fallopian tubes. The inferior opening constitutes the *os uteri*, or mouth of the womb. The uterine cavity in the unimpregnated state is nothing more than the narrow interspace between the flattened walls, which are either in immediate contact, or are separated from each other by only a small quantity of mucus. The triangular form of this cavity results from the confluence of the three channels; viz., the two channels into the Fallopian tubes above, and the canal of the neck below, which opens into the vagina. The apertures which lead into the Fallopian tubes are so small as scarcely admits the passage

*of a stimulus transmitted to these organs from the ovaries.** "Although the uterus is the efficient instrument in the performance of menstruation, *yet the power of initiating and*

of a fine bristle, while the lower opening is from an eighth to a quarter of an inch in diameter. The office of the womb is to receive the fœtus, and retain it during gestation.

THE FALLOPIAN TUBES, or oviducts, are two tortuous, conical tubes, or canals, four or five inches in length, extending from the superior angles of the womb very nearly to the brim of the pelvis. The form of the tubes was compared by Fallopius to that of a horn or trumpet. The uterine extremity, or apex, of the tube, is extremely small, and opens into the womb by an aperture so minute as scarcely to admit a bristle, as already remarked. As it proceeds outwardly, it gradually and regularly widens up to its distal extremity, terminating in a trumpet-shaped mouth, the margins of which are deeply fringed. This extremity has much freedom of movement, and is generally directed inward and backward towards the ovary, in close proximity to which it is preserved by means of one of its longest fimbræ. During sexual intercourse, this funnel-shaped extremity inclines towards and adapts itself to or envelops the ovary. The Fallopian tubes are the true excretory ducts of the ovaries, and serve to convey the ova from the ovaries to the womb.

* THE OVARIES are two oval flattened glands, somewhat resembling the *testes* in form, but not in size, situated deep within the pelvis, on either side of the womb, at a distance from this organ varying from a quarter of an inch to an inch and a half. They are the germ-preparing organs, and the *essential portion of the entire sexual apparatus*. Their functions are the formation of ova, or eggs, and their separation and expulsion when they have reached such a state of maturity as will render them susceptible of impregnation. They are from one to two inches long, a quarter to a half inch thick, and from a half-inch to an inch in their perpendicular diameter; their dimensions, however, varying in different subjects, and at different epochs in life. Previous to puberty, they are rudimentary and undeveloped; and, after "change of life," they become atrophied and shrunken. Each has its secretory duct, — the Fallopian tubes just described; between which and the ovary there is not only an indirect connection by means of one of the long processes of the fimbriated extremity of the tube, but a temporary connection, as has already been said, during sexual intercourse, also during the menstrual period. At these times, the fimbriated extremity of the duct, or tube, envelops the ovary for the purpose of receiving and transmitting to the womb ova which are formed in the ovaria, and evolved at each menstrual period. The ovary is protected by two coats, which "*correspond precisely both in structure and derivation with the analogous coverings of the testes.*" — *Farre.* Its outer coat consists of a layer of peritoneum derived from the broad ligament, and so closely adhering to the tunica albugenia underneath, that the scalpel is unable to separate them. Its inner coat is a hard, whitish, and exceedingly tough membrane, and constitutes its proper covering. It gives form and solidity to the organ, and protects the stroma, or substance, of the ovary and its contained ova from injury. The stroma, or substance, of the ovary is of a soft, spongy texture, and, from the multiplicity and peculiar arrangement of its blood-vessels, HIGHLY VASCULAR. It is *important* that we should be aware of, and bear

gulating this function resides in
powerful reflex influence, not only
lso *upon the entire organism.*" — *Cyclop.*
nd Physiology.

Not only is the uterus affected by the influe.
mitted from the ovaries, but the vagina and othe.
of the genital organs are more vascular and turgid w.
blood than in the interval. The breasts also participate ir
the excitement, and become sometimes swollen and hard.

The ovaries commence the transmission of this influence or stimulus, at the period of their maturity, which is ordinarily at about the age of fifteen. They retain this influence for a period of *thirty years;* then, losing it, menstruation ceases.

This period, that is, when the ovaries have become fully developed, is known as the age of PUBERTY, and is distin-

in mind, the multiplicity of its blood-vessels, and of *its great vascularity.* "It is sometimes of a pale pink, but more often of a bright red color, from the large number of *blood-vessels* which it contains, whose arrangement, proceeding from within, and radiating outwardly in all directions, gives to this tissue, when viewed by the naked eye or by a common lens, the appearance of being formed into bundles, or laminæ. The microscope, however, serves to resolve this tissue into its true element. When so examined, the stroma is found to be COMPOSED MAINLY OF BLOOD-VESSELS." — *Cyclopædia of Anatomy and Physiology.* The stroma affords a soft bed, which also serves as a protection to the delicate ova which are to be found scattered everywhere through it. Each ovum, or egg, has its own true covering; that is, it is enclosed in a sac, cell, or vesicle, called a *Graafian vesicle.* These are easily brought into view in the adult ovary by making a perpendicular section through the organ in the direction of its longer axis. When divided by a clean incision, the section will be found to have included several vesicles, varying from a fourth of an inch down to cells of microscopic minuteness. In the adult ovary, these vesicles are found in every portion of the stroma, in its centre as well as at the periphery of the organ; but previous to puberty, and before the full development of the organ, the vesicles are to be found only at the periphery, where they form a thick rind, the interior being occupied only by blood-vessels. The number of vesicles in each ovary has been variously estimated. It was formerly supposed that twenty or thirty was the limit; and that, when these were exhausted by child-bearing or miscarriage, the power of procreation of necessity ceased. More recent and careful observation, however, has shown that the number is governed by the age of the subject, and that the healthy adult ovary may contain from fifty to two hundred; while "in very young subjects their number exceeds all power of accurate computation." — *Farre.*

phenomena of menstruation, bu
.ical, mental, and moral changes which
. in previous pages.

on of ovarian influence, or menstrual life, is same in all climates. The ovaries reach their .ty, however, at a somewhat earlier age in tropical gions, and at a more advanced life in the higher latitudes. We are told, that, in some elevated northern regions, the ovaries do not mature till after twenty years of age; and *Walker* tells us, that, "in most parts of France, puberty in women commences usually at fourteen years of age, and, in the southern departments and the great towns, at thirteen. In Italy, it takes place at twelve. This is also the case very generally with the Spanish women; and at Cadiz they often marry at that age. In Greece, it is not unusual for puberty to occur at ten years of age. In Persia, according to *Chardin*, it occurs at nine or ten. Nearly the same is the case in Arabia, Barbary, Egypt, Abyssinia, Senegal, and various parts of Africa. Thus puberty in women commences generally, in tropical climates, from nine to ten years of age." Mr. *Robertson*, however, has attempted to show "that the age of puberty is about as early in the cold as in the tropical regions of the earth; and that, were marriages to take place in England at as juvenile an age as they do in Hindostan, instances of very early fecundity would be as common in England as they are in that country. He is of opinion that early marriage and early intercourse between the sexes, where found prevaïling generally, are to be attributed, not to any peculiar precocity, but to a moral and political degradation, exhibited in ill laws and customs, the enslavement more or less of the women, ignorance of letters, and impure or debasing systems of religion." — *Dunglison.* In this climate, the ovaries assume their powers at about the age of fifteen, and lose them at about forty-five, as already stated; which latter is known as that critical period in woman's existence, "*change of life.*"

When the ovaries assume their
fourteenth year, or not till after the
struation is then said to be *precocious* in
the other instance. Both conditions are
danger; one in exhibiting premature develo
part at the expense of some other parts or structu
the other in portraying signs of weakness of the po
of life.

When one part of the economy exhibits a precipitate development, that part appropriates to itself more than its proportionate share of nerve-force at the expense of some other part, and that harmony of action which is so essential throughout the system is lost: hence the necessity of a due performance of *all* the functions of life, that harmony of action may exist throughout the economy.

For fourteen years, nerve-power or nerve-force, generated in the brain by contact of the oxygen in the blood with the substance of the brain, and sent down throughout the system, is employed in perfecting the growth and development of all parts of the body, and preparing it for the great transformation observable at the age of puberty. At the end of this period, the ovaries become fully developed and the menstrual flow established.

Peculiar temperaments, however, produce variations as to the first establishment of the flow. Delicacy of constitution retards the appearance of menstruation; and females of a bilious temperament, and those of a nervous constitution, are earlier subject to the discharge, which is evolved in greater quantities, and with a longer continuance, than in those in whom the lymphatic temperament predominates.

Climate has also its influences. Heat increases the vital energy in all organized bodies. It hastens the budding germ of the plant. Cold arrests it. So, in women living in warm latitudes, the ovaries become earlier matured than in those brought up in cold, moist countries. And *Tilt*

ıean age of the first menstrua-

.	.	.	12 years 6 months,
.	.	.	14 " 9 "
Copenhagen .	.	.	16 " 10 "

.ıs reared in cities, and partaking much of animal ɔd, stimulating condiments, coffee, wines, &c., reach maturity earlier than those brought up in the country; and for the reason that the diet of the latter, as a general thing, consists less of stimulating meats, &c., and more of farinaceous substances, milk, and a vegetable diet, which naturally retards the development of the ovaries, and which is in the highest degree advantageous. Girls subjected to the influence of fashionable life, with its rounds of excitement consequent upon balls, parties, the opera, &c., as well as those subject to the influence of sentimental reading and card-tables, the perusal of prurient books, passion-stirring pictures, statues, conversations upon love, constant proximity to, and fond toyings and personal freedom with, the opposite sex, the fashionable display of the arms and bosom, &c., reach puberty many months earlier, ordinarily, than those not subject to influences of such injurious character. With all such, puberty is not, as it should be, retarded, that the physical structure, and the vigor of the mind, may become so developed, before the union of the sexes, that the stature may not become diminished, nor the beauty fade, nor premature old age induced. Girls brought up in the country, and not subjected to the infatuations, bewilderments, and constant excitations consequent upon fashionable life, nor to the influence of luxury, indolence, confinement within doors, studying absurd accomplishments, and who ordinarily take much active exercise out of doors under the health-invigorating influence of the sun and pure air, and less frequently subject to contact with the opposite sex, do not

usually reach puberty until t
development of the bones and o
such as to enable them to fulfil the g
existence, — the ends of marriage, — and
retain their energy and freshness of s
strength, youthful aspect, and reproductive
advanced age. And not only are these outward
sions of beauty present, but there is, moreover, that ele
tion of mind which curbs all passion whilst it bays all
temptation. *B. de Boismont* has shown that the mean age of first menstruation, —

In the country, was . . .	14 years 10 months.
In Paris it was	14 " 6 "

And from statistical information gained from medical practitioners in Denmark, Dr. *Ravn* states the average date of the first menstruation to be, —

In women born in the country	16 years 5 months.
" " " " commercial towns . .	15 " 4 "
" " " " Copenhagen . . .	15 " 7 "

Civilization contributes also its influences. In the multiplicity of its false and fatal notions of physical and mental cultivation, its ever-increasing complications of social intercourse, nurturing and increasing feelings in man to which he was almost a stranger in rude and barbarous times, a temperament is begotten which has no little influence in advancing first menstruation. *M. Brierre de Boismont* has demonstrated this influence in a limited number of cases (fifty-three), and found that while the mean age of first menstruation was, —

In the noble and rich . . .	13 years	8 months	in 53 women,
It was in the well-to-do working-classes,	14 "	5 "	" 135 "
" " poor . . .	14 "	10 "	" 171 "

, in Denmark, the average date

—

	sses in towns . .	14 years 3 months.
	"	15 " $5\frac{1}{2}$ "
	"	16 " $5\frac{1}{4}$ "

. in the country or farming population, the average date first menstruation was, —

In the rich		14 years 0 months.
" daughters of domestic servants .		16 " 5 "
" " " peasantry . .		16 " 8 " *

"Civilization, by its numerous modificatory influences, by its constant appeals to sexual appetites, begets the nervous temperament, to which may be ascribed the earlier menstruation, and the more disturbed performance of this important function; whereas in the lower classes, particularly in the peasantry, menstruation is less anomalous and diseased, as already noticed by Stahl and Baglivi. It is then useless to disguise that the educated classes suffer from the effects which ever follow a very high state of civilization; for as a tree first takes root, then throws off its strength in unlimited florification, so man, at first sober and chaste, as civilization advances, seeks in every way to extend his power of sexual gratification. The literature of Rome and of Greece, the *Cabinetto segreto* of the Musio Borbornico at Naples, to which no woman can be admitted, shows to what a pitch this was carried in the most civilized periods of polished Greece and Rome; and if, as medical men, we are aware of this evil tendency of our own age, how can we withstand one of the principal causes of the frequency of diseases of women? Every practitioner must have met with many a lady whose abuse of the fashionable pleasures of society had induced extreme nervous irritability, with irregular and profuse menstruation, often

* Tilt.

recurring every fourteen or
these are the results of this fashio.
from the fact that the opposite cond
function is induced by contrary mode of liv.

The first appearance of the menses is not
governed by hereditary peculiarities; the daughter
ating at the same age as her mother, and subject als.
same menstrual infirmities.

The early use of the stimulus of sexual intercourse has the influence of hastening first menstruation. Notwithstanding that much evidence can be adduced in opposition to such a belief, there can be no doubt of the fact. "In India, dishonor is attached to the parents of a girl who is not married when extremely young. It is therefore the custom to affiance children of seven, eight, or nine years of age. They then reside with the family of their intended husband; and connection generally takes place long before it has received the sanction of a religious ceremony. The precocious use of matrimonial stimulus is, no doubt, calculated to advance the period of first menstruation; and it is to the influence of this perverse custom, strengthened by hereditary transmission of what was habitual in the parent, that Mr. Robertson ascribes the incontestably early menstruation of Hindoo women. But this view is too exclusive, when we remember that we are told by Col. Parry and other travellers 'that the beasts have more modesty in them than the Esquimaux, whose licentiousness is only equalled by that of Hindostan.' Nevertheless, their mean age of menstruation is sixteen, if not later, instead of twelve, as in India. Besides, if the practice of early connection brought on the early menstruation of Indian women, how is it that menstruation is retarded beyond the average of temperate climates in Russia, where, for centuries, early marriages have been customary? a national custom which the last emperors have sought to discountenance by repeated enactments." — *Dr. Tilt.*

condition, the ovaries transmit
every twenty-eight days, which
ree to six days, longer or shorter, accord-
perament and other constitutional peculiari-
ions, however, in the recurrence of this phe-
from the ordinary rule of nature, are frequently ob-
ne. In some females, its recurrence is more frequent several days; while in others the returns are experienced only every thirty or thirty-five days. Ordinarily, the catamenial period and interval together occupy a space of twenty-eight days, or one lunar month. The flow is from three to six days' duration; leaving an interval of about twenty-three days, or from twenty-one to twenty-five days, from the time the flow ceases to that of its recurrence. In some women, the menstrual influence is transmitted with such regularity, that the day, and very nearly the hour, of the expected flow, may be predicted.

During pregnancy and lactation, the influence of the ovaries becomes suspended, and no flow takes place. Exceptions, however, occur; and the flow sometimes takes place accidentally from the placenta being situated low down in the uterus or over the os. Cases are also on record of its being evolved regularly from the vaginal portion of the cervix uteri in consequence of disease: none, however, takes place from the interior of the organ.

The discharge generally takes place slowly, drop by drop, and is ordinarily preceded and accompanied, more especially in weak and unhealthy women, with considerable excitement of the pulse, nervous irritability, heat of skin, a sense of oppression, faintness at the pit of the stomach, swelling and soreness of the breasts, pain in the back and loins and in the region of the ovaries, but which more or less subside after the full establishment of the flow. In young women, upon the occasion of its first appearance, these symptoms are frequently most strongly marked. Its commencement is more or less serous in character and small in quantity,

but, after some twelve or twenty hours, becomes more abundant and fully tinged. Towards the middle of the period, it is evolved in its greatest quantity. In two or three or more days, it gradually subsides, leaving not unfrequently, in fact ordinarily, a whitish or leucorrhœal discharge, or, as it is sometimes called, "the whites."

The quantity of fluid evolved at each menstrual period is extremely variable. In some it is very considerable, in others scanty; and the same variations are experienced on successive occasions in the same individuals. It has been estimated that some women lose as much as twenty ounces, while with others the discharge does not amount to more than one or two ounces. Ordinarily, the quantity may be said to be some two or three ounces in temperate regions. In tropical climates, the quantity is enhanced very considerably, while in the colder regions it is very inconsiderable; and we are told, that, among females of the aretic regions, menstruation recurs only during the summer months, and that even then the discharge is very scanty, and scarcely observable. In females confined in rooms of high temperature, the quantity is ordinarily very considerable. Women of dark complexion and ardent temperament evolve a larger quantity than fair women of milder character. It is also more copious in women of sedentary habits, and those subjected to the excitement of city life, than among women of the country, whose life is active, and devoid of injurious influences. The quantity evolved is increased by all those circumstances which irritate or determine a greater than usual flow of blood to the pelvic viscera, or sexual organs: hence the effect of irritating diuretics, drastic purgatives, emmenagogue medicines, alcohol, constipation of the bowels, worms, &c.

The true nature of the discharge, whether it be a *secretion* or a periodical *hemorrhage*, has been the subject of much discussion among physiologists. Some maintain that it is a hemorrhage, and, of course, precisely similar to blood cir-

culating in vessels throughout the system; while others maintain that it is a true secretion, and with but slight resemblance to true blood; and others there are, who, while they regard it as a true secretion, yet believe it to differ in no important particular from true blood. Its commencement and termination in serous and mucous discharges, and the fact, also, that an injection sent into the arteries of the womb readily transudes through its lining membrane, would seem to indicate that it is a true secretion. We have also the testimony of several distinguished physiologists (*Blundell, Sir C. Clarke, Ruysch*, and others), who have seen the fluid distilling from the mucous membrane during menstruation in cases of prolapsus or inversus uteri. A case of vicarious catamenial discharge has also been reported, which took place from the hairy scalp, evincing distinctly the peculiar odor of the discharge.

Respecting the cause and nature of the menstrual discharge, the ancients had many absurd and curious ideas. It was a common belief among them that it exerted a baneful influence upon every thing; and their laws show that they looked upon this natural process with abhorrence. *Pliny* tells us that "woman is the only menstrual animal, and therefore the only one whose womb produces what is called a 'mole.' A mole is an amorphous mass of inanimate flesh, which can neither be cut with the edge nor pierced with the point of a knife." He also adds, —

"There is perhaps nothing in the world more monstrous than the menstrual fluid. Wine turns sour in its presence, seeds when touched with it lose their germinating power, hedges die, and seeds planted in a garden where it falls are burned up in the ground. If a woman with the menses sits upon a tree, its fruit falls. Mirrors lose their polish, knives their edge, and ivory its brightness, by its contact. Bees perish in their hives, and brass and iron are seized with sudden rust, and acquire a horrid odor, if touched with the fluid. A dog that tastes it goes mad, and his bite is mortal."

From the Bible we learn many of the superstitious observances and opinions relative to the menstrual discharge. When Jacob fled from Laban, taking with him Rachel, they stole some of his images. "In the thirty-first chapter of Genesis, the story is told in the following words: 'And it was told Laban on the third day that Jacob was fled. And he took his brethren with him, and pursued after him seven days' journey; and they overtook him in the Mount of Gilead. Now, Jacob had pitched his tent in the mount, and Laban with his brethren pitched their tents in the Mount of Gilead. And Laban said to Jacob, What hast thou done? yet wherefore hast thou stolen my goods? And Laban went into Jacob's tent, and into the two maid-servants' tents; but he found them not. Then went he out of Leah's tent, and entered into Rachel's tent. Now, Rachel had taken the images, and put them in the camel's furniture, and sat upon them. And Laban searched all the tent, but found them not. And she said unto her father, Let it not displease my lord that I cannot rise up before thee, for the *custom of women* is upon me,' &c. Here you see at how ancient a period it was a custom of women to be unwell; and, what is more, you see a man, who, with an armed force, had pursued his run-away family for seven days' journey, manifestly with the most violent anger and eagerness to recover his idols, yet for the simple words, *custom of women*, he went out of the tent without making the lady violate the *convenances* belonging to her sexual custom. If she had not made this pretence, do you doubt that he would have dragged her from her seat to find the precious gods in whom he put his trust?

"The Hebrew lawgiver doomed every Israelitish man to death that should lie with a woman at such a conjuncture." —*Prof. Meigs.*

Notwithstanding all their speculations and theories, the earlier physiologists groped about in thick darkness; and it remained for the physiologists of our own day to elucidate

the great truths as regards this important phenomenon. It was held by earlier writers (*Gall* and others), that from the great regularity and return of this physiological process every twenty-eight days, or a lunar month, it was ruled by the moon's influence. If this were true, however, all women in the same meridian would experience its return at the same time; whereas it is known there is not a day throughout the month in which some women are not menstruating. Others regarded menstruation as a mechanical consequence of the erect attitude; and *Roussel* maintained that the menstrual flow ordinarily did not exist, but was produced artificially by too succulent and nutritious a regimen, and afterwards handed down from generation to generation.

Another idea, at one time very generally accepted, as regards this phenomenon, was, that, as woman is a gestative creature, she requires an increased supply of blood for the proper growth and development of the embryo. In view of this necessary requirement, there must needs be manufactured, every month, an excess of blood beyond the requirements of her own system; and, if this excess was not required for the purposes of reproduction, the womb, acting as a safety-valve, threw off the surplus, which, if retained, would endanger life by inducing a state of general plethora and vascular fulness. Those adopting this idea overlooked the fact that those who evolve the greatest quantity of menstrual fluid, and who menstruate the greater number of days, are those women the very opposite of plethoric, — those who are thin, spare, attenuated, and enervated, and who have the least and often the most impoverished blood; and, besides, were these same women bled from the arm just previous to the flow, the menstrual phenomenon would still take place.

That there is, however, a *local* plethora, or vascular fulness of the different organs and tissues of the *sexual system*, is true, — a plethora induced by the *physiological*

congestion of the ovaries every twenty-eight days, while these organs are undergoing the process of ovulation; i.e., maturing and discharging the ovules, or eggs, into the oviducts, or Fallopian tubes, which connect with the womb at each of its upper angles.

To these monthly changes in the ovary, that is, *the ripening of the egg, and its discharge into the tube leading to the womb*, is due the occurrence of the menstrual flow.

During the thirty years of menstrual life, there is constantly developed in the ovaries minute sacs, or vesicles, called Graafian vesicles, each containing an ovule, or egg. Every twenty-eight days, one of these sacs, with its enclosed egg, becomes matured. In the process of maturation, it reaches the surface of the ovary, and projects slightly beyond it, like a nipple. At last, from the increasing pressure of the rising ovule, the sac, or Graafian vesicle, bursts, and discharges its contents. The Fallopian tube receives the ovule, and carries it forward to the uterus.

This process is termed *ovulation*. It takes place spontaneously; that is, without the intervention of the male. It was formerly supposed, in fact is even now believed by many, that the egg is only discharged after fecundation, and that the latter takes place while the egg is incased in the ovary.

During the ripening process of the Graafian cell and germ, the vital processes of the ovary become greatly enhanced. The nerves are in a highly exalted condition; and blood-vessels that were before invisible to the naked eye now rise into view, interlacing each other in great profusion over the whole surface of the organ, but more especially surrounding the swelling follicle or vesicle.

It is while undergoing these physiological changes that the ovary transmits a stimulus, or influence, to the womb; which stimulus, or irritation, by inducing a turgescence of the vessels of the uterus, and hypertrophy of its lining membrane, is the efficient cause of the flow. The flow is,

in fact, the *resolution* of the previous turgescence of the vessels.

Menstruation is but an external sign that the ovaries are perfected. It cannot take place until the ovaries are sufficiently developed to mature and discharge ova, and it continues to recur so long as the ovaries are in active operation; but when they become so shrunken, and their tissues attenuated and wasted, that no ova are matured or evolved, menstruation ceases, because that which was the cause of the flow ceases to exist.

When the ovaries are congenitally deficient, no flow takes place, nor does it occur if the uterus is deficient; but in this case a regularly-recurring menstrual molimen takes place, and a flow would result but for the want of the uterus to carry out the function.

The result of the researches of *M. Raceborski* are as follows: "*First*, That there exists the most intimate connection between the Graafian vesicles and menstruation. When the vesicles arrive at their full development, menstruation commences; and, when they are destroyed, it ceases. *Secondly*, At each menstrual period, a follicle projects, like a nipple, on the surface of the ovary, where it afterwards bursts without requiring for that purpose any venereal excitement. *Thirdly*, The rupture of the follicle generally appears to take place at the period when the menstrual discharge is stopping. And *Fourthly*, The ovaries do not act alternately as has been affirmed; in this respect, not seeming to be under any fixed law. In a more recent work, he asserts the doctrine that the catamenia are but a secondary phenomenon in menstruation, so called; that the capital phenomenon is the maturation and periodical discharge of ova; and hence a woman may give birth to several children without ever having seen the catamenia."—*Dunglison's Physiology.*

The approach of the first menstrual period is ordinarily marked by the occurrence of a variety of affections; such as

skin-diseases, chorea, epilepsy, headache, disorders of the stomach and bowels, &c., — disorders that will obstinately remain, no matter what treatment may be instituted, until the catamenia become established, when they at once disappear.

Ordinarily, just previous to the initial discharge, premonitory symptoms are observable, — disturbed or unrefreshing sleep, restlessness, and bad dreams, which are followed with a sense of heaviness, languor, and headache. As the time approaches, great irritability of the nervous system evinces itself, with much vascular fulness. The head feels unnaturally full, pressed, and swollen, as if more blood than usual was circulating there. The temples throb, the eyeballs feel hot, and a stooping or recumbent position adds to the discomfort. Pains in the small of the back and iliac regions, darting pains radiating from the pelvis in every direction, with swelling and soreness of the breasts, are among the usual manifestations; all of which symptoms, however, are speedily dissipated on the appearance of the flow. With many, the above symptoms are so slight as scarcely to be recognized; while with others they occur with much severity, and oblige the female to rest from her usual daily avocations until the time has passed.

The initial discharge may be and very frequently is a profuse leucorrhœal discharge, but which is attended with full relief to the system.

The discharge may, from the first, observe its proper regularity; but this is seldom the case. A period usually of some months is passed over before the returns occur regularly every lunar month.

This period of transformation from childhood to womanhood may well be termed "critical," in these days of improper physical, mental, and moral training; and parents may well regard its approach with anxiety. It is not, as we have already observed, accomplished at once, but extends over a period of months; during which time the

young woman is subject to a multiplicity of ills, which may terminate with the full establishment of the flow, or attend her through life.

It has already been remarked that the ovaries lose their influence over the sexual system at about the forty-fifth year of age, and menstruation ceases. Menstrual life may terminate at once, and without being followed by any morbid or unpleasant symptom. This, however, is not ordinarily the case. The change usually occurs gradually, accompanied with irregularities. One or two or more periods may be passed over without any appearance of the discharge, and then again appear with considerable profuseness. The quantity also varies. For several successive periods, the discharge may become more and more scanty, and then be followed by a flow that partakes of the character of menorrhagia.

This is a period in the existence of woman which may well be regarded with some degree of apprehension, and has been well termed "critical." Seeds of disorder, that have long lain dormant, now become roused into activity by the changes which take place in the system. Any tendency to organic disease generally manifests itself at this time. Induration, cancer, and other diseases, may attack the womb, and serious disorders may arise in other parts of the system. Apoplexy, disease of the stomach and bowels, of the liver, lungs, hemorrhoidal affections, obstinate diseases of the skin, ulcers, gout, rheumatism, &c., are both frequent and common. This is a period of life, also, that is looked forward to with much satisfaction by those who have long suffered from obstinate chronic diseases, in the hope, that, when they shall cease to menstruate, their many obstinate infirmities may fade away.

That the reader may have clear perceptions as regards the process of ovulation, or menstruation, we will here introduce the views of Prof. *Meigs*, in his own chaste and beautiful language. He says, "If you should pick up a

pebble on the shore, or a handful of sand; if you should break off a bit of stone from one of the great rocky strata of the earth; or if you take in your hand some salt, or a piece of glass, or a bar of iron, or an ingot of silver or gold, and carefully examine them, and inquire into the laws of their production, and continuance in a present condition, — it will be easy to arrive at the conviction that they are destitute of life, of sensibility, of appetency, and incapable of producing or generating their like, and altogether without organization; and that they are, in short, inorganic bodies, controlled only by laws of the cohesive, elective, and gravitating attractions. If, now, you take into your hand a butterfly, or the smallest creeping thing or infusorial creature, or any plant, blossom, or seed, or whatsoever thing that is endowed with life, with life-force, you will perceive at once the difference between it and the inorganic masses that possess only brute force of matter; but, if you attempt to set down in plain words the difference betwixt inorganic and living organic matters, you will be surprised to find how difficult is the task. . . . It appears to me that the reproductive force is the eminently discriminating and characterizing force as betwixt the organic and the inorganic bodies, since it is clear that the ponderable bodies — as metals, alkalies, earths, and gases — are incapable of reproductions; whereas all living, all organized bodies are but the repetition, or reproductions, of forms and forces with which their archetypes were endowed from the commencement of the present cosmic order and arrangement. . . .

"You ought to remark that the divine Author of the world has so ordained his laws, that the fleeting and evanescent form of living being is, after all, as permanent as creation itself; and that, while we are in our own persons such perishing creatures, we are permanent, I had almost said immortal, as a genus or a kind, who have been here since the beginning, and destined to exist as long as the inorganic materials upon which we tread. Does it not seem,

then, that God has impressed upon our natures a great force, a great principle of extension in time and in space, and which insures our permanency? Judge, then, what must be the amazing power and necessity of that law or that force upon which the conservation here, and the permanency, of the genus depend, and alone depend. . . .

"Take further into consideration the thought, that if these laws are really so potent as to keep us forever here upon the earth, as mankind, so that the earth cannot become again a wilderness, the abode only of inferior creatures, must it not be that similar laws and sanctions are provided for the conservation of all other forms of existence? Do you not, therefore, perceive that each blade of grass, each tender blossom, or branching oak, or lofty pine, or trailing vine, repeats itself by means of the same force, from age to age, so that the modest violet, peeping with its blue petals and yellow anthers from its shelter of dewy leaves, is, in fact, as durable as time itself, and that its perpetuity is secured by the same force that perpetuates us and all creatures besides? Every grain of wheat, every kernel, every seed, contains a germ. Every egg of the smallest aphis, the tiniest sparrow, the tallest ostrich, has a germ within it. All the spawn of fishes contains in each granule a germ. If you put a quart of distilled water in an open vessel upon your window-sill, it will soon be teeming with living infusoria, whose invisible germs float on every breeze through the air, and, when deposited in the vase, evolve themselves, and become instinct with life and motion. All the mammalia are likewise reproduced from germs contained within true vitellary bodies or eggs. The egg of the barn-door fowl is not more perfectly an egg than is the microscopic egglet you find in the Graafian follicle of a cow, a mare, a sheep, a dog, or a whale. Each egg contains not only its germ, but its yolk. The viviparous creatures require but a small quantity of yolk about the germ, as the embryo attaches itself to the living solid of

the mother; the oviparous creatures require a large amount of vitellary matter for the embryotrophic wants of the embryo. The germ in the egg of a humming-bird is as large, probably, as that in a cassowary's egg; but the humming-bird at leaving its shell is incomparably smaller than the young of the cassowary or ostrich. Hence the embryotrophic wants of the latter are supplied by a vast quantity of materials, and the former by a few grains only of the same sort of reproductive matter.

"The germ of a whale eighty feet in length is not larger, probably, than that of a perch: but the placental life of the balæna enables it to evolve its young of the length of twenty feet or more; while the spawn of the perch or salmon is not larger than the head of a pin, and its embryo of a conformable magnitude.

"I have now to ask you to inquire whether these eggs in all the living tribes, whether of an animal or vegetable kind, are produced *continually*, or *at stated times*. But why should I ask you to make this inquiry, since I know that you have already made it, and are well informed upon the point?

"You know when you go into the gardens, in early spring, to soften the soil, and prepare it for planting. You know when the farmer mows, and when he reaps his harvest. You know when the lambs of the flock are yeaned, when the roses and tulips, when the migratory birds and fishes, produce their young. How often does the germ-production take place? Once a year. The flight of the pigeon; the migration of the swallow; the annual arrival on our coasts of the shad, the herring, and the salmon and cod; the bursting of the leaf-buds of the forest; the springing-up of the grasses and flowers in the vernal season, — are facts known to you, and which have taught you that germ-production is not continuous and progressive, but paroxysmal and periodical. But if, throughout all Nature, we find that germ-production is a periodical occasion, a vital

paroxysm, why do we hesitate to believe that we also are under the same universal sole law of reproduction? As well suppose half a dozen different principles of gravitation, or of cohesion, or elective attraction, as a variety of reproductive principles: there is but one, which is *omne vivum ex ovo* ('all life springs from germs or eggs'); and the ovum is produced, not continuously, but paroxysmally.

"As I am considering the subject of germ-production, I shall take occasion to call your attention more particularly to a wonderful scene that is annually presented in the United States. I allude to the annual rush into the American rivers of different tribes of migratory fishes, that force their way from the ocean into the mouths of our rivers, and, ascending as near as they may towards the head waters, find at length the suitable places for depositing their spawn, or, in plain English, for laying their eggs, each one of which contains a germ. The fishermen of the Potomac, and of the rivers in North Carolina, not unfrequently catch, at a single haul, as many as fifty thousand herrings; while vast quantities of shad are also captured in all the rivers of the Atlantic American coast. In spawning season, the salmon in the Oregon rivers are so abundant as actually to check, in a degree, the current of the streams, as we learn from the traveller Mackenzie, as well as from Messrs. Lewis and Clark. The annual visitation of the shad takes place in the United States in the spring of the year. They, perhaps, come up from the antarctic ice, and strike our coast north of Carnaveral, entering first the rivers of Georgia, where they are seen sometimes about the 20th of January. They next in succession explore the waters of the Carolinas, Virginia, Maryland, and Delaware, entering the streams of Pennsylvania, New Jersey, and New York; and so on, at later and still later times of arriving, until the migration is over. Millions are consumed as fresh food, and an immense number put up as salt fish for later consumption and for exportation. It is rare to find

one of them in the waters that run into the Gulf of Mexico. Thousands of millions of herrings annually pursue the same course. The herring are said to come from the shores of Spitzbergen and the Greenland ice. They divide into two immense streams, one of which proceeds downwards, near the coasts of Europe, and the other by way of Labrador, and so south, until their instinct teaches them the time is at hand for securing the reproductive product. Now, this vast migration through many hundred leagues of trackless ocean is compelled by an instinctive force, which is a part of, or at least attached to, the reproductive force; just as the commencement of the nest for the mocking-bird, or the darkening of the aurelia for the impregnated woman, is part of that force. That instinctive force it is which causes them to ascend to the shallows, where the sun's vivifying light, and where a lessened temperature of the waters, at the proper season, may perfect the evolution and exclusion of the embryo fishes.

"In all the bony fishes, the male is destitute of any copulative apparatus; and hence his only function is to follow the female, in order to shed his fecundating secretion over the places where her germs are deposited; and his voyage of hundreds of leagues is a compulsatory one, under the stimulation of that great reproductive life-force. Once a year, he returns from his distant feeding-ground 'in numbers numberless,' to perform this great act of the conservation of the genus.

"It is in a staccato, not a sostenuto mode, that this great hymn of Nature is performed. Could I possibly cite a stronger case to show the periodical, paroxysmal, pulsatory nature of the great reproductive function?

"In like manner, the herds of buffaloes on the great Western prairies, ten thousand in a herd, wander from the internal provinces to the banks of the Saskatchawan, annually repeating the same scene; and so it is with the moose, the

elk, the deer, bear, wolf, fox, and marten; it is so with the saurians, the chelonians, the ophidians, and with every animal and every vegetable. Why should it not be thus with woman? It is thus. Her term is mensual, not annual: she has the reproductive paroxysm every twenty-eighth day. Some of the domestic animals have it every forty-fifth day; and the vibration is longer or shorter according to the nature and condition of the subject of it.

"A healthy woman matures and deposits an ovum every twenty-eighth day from the age of fifteen to that of forty-five years, failing only in case of pregnancy and lactation, and sometimes not even then. She sometimes suffers an arrest of the force during lactation; yet, in the majority, even that arrest is but of short duration, and in many it does not take place at all. The closing stage of the process of maturing and depositing, or discharging, the ovum, is attended with a discharge of bloody fluid from the genitalia, which is called menstruation, because it takes place once a month."

We have given a much longer extract from Prof. Meigs's work than we intended, but not longer, we believe, than would be interesting and instructive to the reader. Nor will we stop here. As he has shown what menstruation is, we will follow him yet a little longer, to his conclusion, and learn from him —

What are the Organs of Menstruation. — He says, "I shall now proceed to state, that in the economy of the human female, as in all other creatures, there is provided an organ for the evolution of germs, and that these germs cannot be produced by means of any other tissues or organs of which any animal or vegetable consists. This organ is the ovary. In the woman, there are two ovaries, — oval, compressed bodies, each about an inch in length by half an inch in depth and a third of an inch in thickness. But the size of the ovary differs in different women; being in

some larger, and in others smaller, than the above-mentioned average. Each ovary is attached to an angle of the womb by means of the ligament of the ovary, which is a cylindrical cord about an inch and a half in length, more or less, and as large as a small quill. Each ovary lies behind the Fallopian tube and round ligament, and is enclosed within the peritoneal or broad ligament, which gives it its covering, or indusium. Inside this indusium, or peritoneal covering, is found the fibrous strong coat, or delimitary membrane, of the ovary; which being taken off, nothing is left save the stroma, or ovarian substance, containing the Graafian *vesicles*, or Graafian *follicles*, or Graafian *cells*, as they are indiscriminately called.

"The stroma of the ovary is produced by the ovaric artery and nerve. I say, produced by them; for it was originally evolved by them, and is constantly fed and maintained in its rate of size, weight, and functional power by them, as the source whence are derived all the accretions required by the momentary waste, detritus, or life-combustion, of its molecules. What a curious speculation it is, that this long, wandering, ovaric artery, and spermatic nerve, should be the only artery and only nerve in the whole economy capable of producing *vitellus*, or yolk matter! for, after all, they do produce it, and they alone.

"The ovary being endowed with the power of producing vitellus (yolk matter), as in the ostrich, where a vast quantity is evolved, and in the female of our race, where the quantity is so small that a good doublet is necessary to find, and a good microscope to observe it afterwards, it is also endowed with the power of producing germs, of which vitellus, or yolk, is the sustaining principle, or aliment, or cytoblastema. (The germ is enclosed within, or surrounded and sustained by, the yolk.) . . .

"At different times, I have exhibited to you [his medical class] the yolk taken from the ovary of the cow, as well as that from the ewe. You remember that the ovarian vesicle

was punctured with a lancet; and a drop of liquid which spurted from the incision being collected on a lamina of glass, and placed under the microscope, the yolk containing its germinal vesicle and macula were shown you in one of Chevalier's microscopes. This yolk-ball was contained within Graaf's vesicle. Graaf's vesicle has two coats; an inner one, and an outer one which contains the inner one, — sphere within sphere; but the spheres are buried beneath the fibrous coat of the ovary. This fibrous coat is contained beneath the peritoneal coat.

"This statement, taken in connection with the fact that the ova of birds and fishes and frogs, &c., are discharged without the intervention of the male, or any antecedent sexual conflict, ought to convince any one that fecundation of the ova *does not take place within* but outside of the ovaria, and therefore the ova must escape from the ovaria previous to the impregnating act. In other words, there is a physiological function of the ovaria to mature and discharge its ova in order that they may be afterwards haply fecundated. If you admit that this statement is a correct one, then you accept the doctrine of the spontaneous expulsion of ova, or the oviposit. Admitting the oviposit as a law of the reproductive force, then the question arises again, Is it an irregular or a regular and periodical function? I have shown, that, through all living nature, it is periodical, not continual, not irregular, not accidental. I see no bar to the conclusion that it is so in women. . . .

"I conceive that enough has been said to convince you that the ovulation and spontaneous deposit of ova is completely independent of and disconnected with any sexual sense or sentiment in the human being, though it is far otherwise in the lower mammals, &c. The reason of this difference is to be found in the high morals of reasoning creatures, as distinct from those beings that are governed by instinctive sense, and not by reason.

"If you accept the doctrine of the spontaneous periodical

deposit of ova, then I think you have little difficulty to account for the menstrual engorgement of the reproductive organs, or the monthly *local* plethora or turgescence or hyperæmia, which is relieved so regularly and completely by the catamenial or menstrual hemorrhage.

"The evolution of the Graafian cell is more and more rapidly effected as it approaches nearer and nearer to its completion. The largest and most mature follicle is now enveloped, so to speak, in a mass of *injected and engorged and hyperæmic tissues* redolent with life: *it is surrounded with red vessels* carrying on in it the development-offices. The cell, like a growing tooth, is magnified and raised up so rapidly, that, like the gum over the tooth, the stroma (i. e., the substance of the ovary) around the cell *becomes turgid, succulent,* ALMOST INFLAMED, we might say. *Under such circumstances, what wonder have you to find the* WHOLE OVARY SWOLLEN AND TURGID, *or the womb itself affected in the same way* (from the stimulus transmitted to it from the ovaries); *what wonder to find the woman complaining of pain in the ovaric region (low down* on each side in the bowels, the iliac regions), *and in the womb, with aching, with heat, with sense of weight and dragging in the pelvis; and to find, on examination, that the uterus is larger, heavier, and more colored, than in the inter-menstrual periods?*

"*In fact, the womb, previous to the disengorging outflow of the menstrual blood, is redder and heavier, and more succulent, than when it has been fully acquitted by the discharge.*"

We have quoted at great length from Prof. *Meigs* ("Diseases of Females"), and for the reason that we believed it would interest and instruct the reader, *but more especially that we might call the attention particularly to the state of the ovaries just previous to and during the early part of the periodical flow* as described above by the professor, and Italicized by ourself. We are glad to be able to give such

high authority; glad, when we say, that during each catamenial period, although a physiological process, the ovaries, or menstrual organs, are in a *highly congested and engorged condition*, in fact "ALMOST INFLAMED," that we can point to such high authority as Prof. *Meigs*.

The menstrual organs are of a spongy, erectile, and vascular tissue. This tissue is subjected every twenty-eight days to a state of vital turgescence. Its blood-vessels are in a highly congested and engorged condition. How pre-eminently susceptible, then, must be these organs to disease! how liable to take on diseased action from the slightest cause! how easy, from some trifling cause producing a slight exaggeration of this physiological condition, the transition from this "*almost* inflamed" to a pathological state! And yet neither this pre-eminent susceptibility, *nor the actual diseased condition of the ovaria, and the morbid stimulus they must inevitably transmit to the womb, inducing morbid action there*, receives scarcely a thought, we will venture to say, from nine physicians out of ten.

In passing to the consideration of the menstrual organs in a state of disease, it should be borne in mind that these organs are subjected monthly to a process, which, although a physiological one, approaches to the very boundary-line of a pathological condition. They are subject, as is no other organ in the economy, to a state of periodical turgescence, which amounts *almost* to an inflammatory process. We have seen, that during the later days of the ripening process, or maturing of the Graafian cell and germ, the vital processes become greatly enhanced; the nerves are in a highly exalted condition; the entire organ is engorged, swollen, red, sensitive, painful, and not unlike the swollen and sensitive gum over a growing tooth; the swelling follicle, like a small nut protruding from the organ, rises up rapidly, until at last, the sides of the cell becoming so thinned from progressive absorption, the ovule bursts from

its prison-house, and falls into the oviduct or Fallopian tube, or into the peritoneal sac.

Bearing this condition in mind, it is no difficult task to conceive how this vascular and nervous excitement, under the influence of morbid stimulus (as, for instance, "cold," or those prurient incitations to which the sexual organs are so frequently subjected), may become increased till it reaches a point where each of the above manifestations become greatly intensified; where the menstrual organs are still more congested and engorged with blood, more swollen, more red, more painful; the nerves in a still higher exalted condition, with more heat, more pain on pressure; an intermittent or permanent deep-seated and severe pain deep in the iliac regions, which is greatly aggravated if the patient attempts to rise, or even straighten the limb upon the pelvis, and which may be accompanied with hysterical symptoms, —pains radiating to the loins, and down the thighs, and upwards to the small of the back, with or without more or less fever, hot skin, quick pulse, and a slight puffiness or swelling in the iliac regions. The womb participating in the over-excitation (for it can hardly be supposed, so intimate is the connection between these organs and the womb and vagina, that this condition of the menstrual organs could long exist without implicating or transmitting a morbid stimulus to those organs), the flow may be arrested entirely, or retarded for a time, and then burst forth with a profuse flow. What is the condition that we now behold? We see that the vital processes of a physiological condition under the influence of morbid stimulus has become heightened until it has emerged into a pathological condition; and that pathological condition is INFLAMMATION OF THE MENSTRUAL ORGANS.

III.

INFLAMMATION OF THE MENSTRUAL ORGANS.

INFLAMMATION of the menstrual organs may be of the ACUTE or SUB-ACUTE form; or may be, from the peculiar character of its exciting cause, SPECIFIC.

ACUTE FORM. — The acute, an extremely rare form in the unimpregnated female, is characterized by the great intensity of the morbid process, passing through its different stages with great rapidity, terminating in resolution, effusion, the sub-acute form, or disintegration. This form we do not propose to consider.

SUB-ACUTE FORM. — This is generally the primary of the two forms, and by far the most frequent. It is distinguished from the acute by its longer continuance, and a less intensity of morbid action. This form usually gives rise to very little if any external appearance of swelling, and very little febrile action ordinarily. If there be any fever, it is generally of a slight and intermittent character. If the pulse be affected at all, it is in frequency, generally, more than in strength or firmness. Its characteristic local symptoms are often very obscure; and the disease may be present for months, without any decided symptom developing itself sufficiently to attract the attention, and may pass undiscovered unless sought for. Sometimes, however, the sub-acute partakes of the character of the acute form, and is accompanied with considerable fever, an excited pulse, much local tenderness, and sometimes swelling.

The effusion from its outer coat, like matter effused by

all other serous membranes in sub-acute or chronic inflammation, is cacoplastic or aplastic (patches of a kind of fibro-cellular or fibro-cartilaginous membrane incasing the organ, or gluing it to the neighboring tissues); or the deposit may be in shape of detached floating flakes or curds.

When we speak of inflammation of the menstrual organs, we have no reference to the puerperal state; nor do we mean inflammation of the substance of the organ only, but of the Graafian vesicle or cell, and of its peritoneal covering.

It is supposed by some that the substance of the organ is the part generally involved, while by others it is thought to be confined to its peritoneal covering, and by others to the Graafian cell: but the seat of the inflammation may be in its peritoneal coat, or in the Graafian cell, or in the substance of the organ; or these may be simultaneously the seat of the morbid process.

The organs, one or both, are generally found more or less increased in size, often covered with a false membrane, and frequently glued to the fimbriated extremities of the Fallopian tubes. The latter, and the ovaries, are not unfrequently simultaneously the seat of inflammation, and the two organs firmly matted together; or each may become adherent to adjacent tissues, and so separated that the fimbriated extremities of the tubes cannot reach or adjust themselves to the ovaries. If this happens to both ovaries and tubes, sterility is inevitable: if only one ovary and tube be involved, there may be no hinderance to conception.

"Chronic inflammation of the substance of the ovarium terminates, as in other viscera of the body, by thickening and enlargement of the part. Such cases, after the commencement of the disease, will often remain stationary, without inconvenience, for years." — *Seymour.*

Unfortunately for woman, disease of the menstrual

organs has been and is now regarded by many medical writers (*Ashwell, Churchill, West, Bennett*, and others) as being of far less frequent occurrence than disease of the womb; and that, when it does occur, it ordinarily *succeeds* uterine inflammation. *Churchill* says, "It is true that diseases of the ovary are less frequent than those of the uterus; and one reason for this is, that their physiological changes are of a character less liable to be converted into disordered action (they are not exposed to irritation from acrid discharges), and far less to mechanical injury, especially to that which results from excessive sensuality." *Ashwell* says about the same thing.

In our opinion, the very opposite is really the truth: for we have seen, that, instead of "their (the ovaries) physiological changes being of a character less liable to be converted into disordered action," they are subject every twenty-eight days to a vital process, which, although a physiological one, approaches the very confines of a pathological condition; and the slightest breeze of accident is oftentimes sufficient to heighten this physiological process to a point where it becomes a diseased condition.

That inflammation of the menstrual organs occurs ordinarily as the effect of a previous uterine inflammation, as is affirmed by many, is exceedingly improbable. That it is *vice versâ*, is, we think, capable of demonstration. One among the many reasons that could be adduced, is, that uterine inflammation is very seldom, if ever, present before puberty, or after "change of life." Uterine disease, acrid discharges, &c., do not occur when the ovaries do not exist; and they are seldom or never present before puberty, and very generally cease at the close of menstrual life, when the ovaries become shrunken and atrophied. Why is this? If uterine inflammation be a primary disease, why is it not observable before puberty, and after "change"? Why do not morbid discharges occur before menstruation? and why do they generally, we say *generally*, cease with it? Why

does woman look forward with pleasure to that golden period of her existence when she shall no longer be subject to her monthly ill; i.e., when the ovaries become shrunken, and lose their power over the womb, — a period when she can throw aside the many infirmities that have attended her during menstrual life? Certainly it looks very suspicious that the menstrual organs are the chief agents of these infirmities: for we see, that, when these organs are absent, those diseases peculiar to women are *never* manifest; we see that when these organs are yet immature, and hold no controlling influence over the womb or other sexual organs, uterine diseases are exceedingly uncommon, and almost unknown; we see that when they become fully developed, and assume their powers at puberty, and capable of transmitting their physiological stimulus, or a morbid stimulus if diseased, uterine disease, morbid discharges, hysteria, &c., are frequent and common; and we see, also, that when they have reached the full period of their existence, and lose their influence over the sexual system, and are no longer capable of transmitting either a physiological or a pathological stimulus, these infirmities cease. *Ashwell* says, "It is true that morbid lesions (uterine disease, acrid discharges, &c.) are *uncommon*, although not altogether unknown, before puberty."

That these organs are less exposed to "*mechanical* injury which results from excessive sensuality" is perhaps true enough; but to the *morbid stimulus* of excessive sensuality they are *more* subject than any organ of the sexual system. Why? Because the erotic sensibility of the clitoris is almost entirely if not wholly due to the influence of the menstrual organs. If there be no menstrual organs, there will be none of that erotic sensibility of the clitoris which leads to sensuality. If the menstrual organs become diseased, or if their functions become suspended through pregnancy or nursing, erotic sensibility is lessened; and so, from the strong bond of sympathy that exists between the

clitoris and ovaria, the over-stimulation of one is inevitably followed by over-stimulation of the other. What says *Alexander Walker?* — that, "whenever erotic passions are present, ovaries will be found; whenever these passions are absent, no ovaries will be discovered." *Nauche* says, "Young women of a sanguine temperament and vivid passions are the most obnoxious to this affection" (inflammation of the menstrual organs); and *Lowenhardt* says, "Inflammation of the ovary decidedly occurs not only without the slightest approach to nymphomania, but is frequently attended by a directly opposite state of feeling on the part of the patient." When investigating CAUSES, we shall see that not only does excessive sensuality contribute to disease of the menstrual organs, but that ungratified sexual feelings tend to the same end. *Ashwell* says, "The ovaries are subject to excitement before and during menstruation. The state of the Graafian vesicle, too, is liable to sudden change, not only as the natural result of conception, *but from ungratified sexual feeling*, and acute and chronic inflammation."

The above observation of *Ashwell* — viz., that "the state of the Graafian vesicle, too, is liable to sudden change, *not only as the result of conception*," &c., in connection with what he says subsequently, that "the investing tunic (of the ovary) must also be torn *whenever impregnation occurs*" — very evidently shows that he regards impregnation as necessary to the deposit of the ovule in the Fallopian tube; and that when impregnation takes place, and the oviposit does occur, he admits, that, from the tearing of its investing tunic, the ovary, or the Graafian vesicle (which is a part of the ovary), is subject to "acute and chronic inflammation:" and he further says, that from this cause, viz., impregnation and tearing of the investing tunic of the ovary, "we can have no hesitation in believing that *the ovaries and Fallopian tubes* must for many years of female life be *common seats of disease*." Now, we have

seen that impregnation is *not* necessary to oviposit (on the contrary, impregnation *cannot* occur while the ovule is incased in the Graafian cell of the ovary), and that there *is* an oviposit and "tearing of the investing tunic" every twenty-eight days; and consequently, according to his own admission, the ovaries *are* liable *monthly* "to acute and chronic inflammation;" which therefore renders nugatory his assertion, that "the causes of this disease (inflammation of the menstrual organs) are *commonly* puerperal."

Ashwell, in common with *Churchill*, *West*, *Bennett*, and many others, labors with a good deal of stubborn pertinacity to foster preconceived notions, which are entertained by a large number of the professson; viz., that inflammation of the ovaries is a *secondary* affection, and consequent upon uterine disease. He, however, is constrained to admit that ovarian disease does occur "*occasionally*, apart from inflammation of the uterus;" and cites the following case: "Some years since, in consultation with the late Dr. Cholmeley of Guy's Hospital, I attended Mrs. ——, aged thirty-nine, the mother of several children, for what *we supposed to have been acute inflammation of the unimpregnated uterus*. She recovered with great difficulty. Immediately afterwards, she began to suffer pain, and to enlarge in the left iliac region. Dr. Cholmeley was again called; and we feared that it might be commencing ovarian dropsy. She was advised to keep quiet, and not to take any thing beyond mild aperient medicine. She continued, however, to enlarge; and in the course of three weeks, without any aggravation of the ovarian symptoms, she died from neglected pneumonia. On inspecting the body after death, we found the uterus *entirely free from all appearance of inflammation;* but the *left ovary was enlarged and highly vascular*, and in one spot there was an *evident cyst containing healthy pus*. The Fallopian tube was thickened, and adherent by its fimbriated extremity to the surface of

the ovary." — *Disease of Females.* "In one fatal case, an out-patient of Guy's, which I saw only a few hours before dissolution, the inflammation arose from sudden suppression of the catamenia. The patient was seized, having sat in her wet clothes for some hours, with violent pain in the *left iliac fossa.* In four days, she died; and, on inspection of the parts, the uterus was found to be large and soft, but *without marked evidence of inflammation. The left ovary had been intensely inflamed, pus had formed in its structure, and the whole organ was almost in a state of disorganization.*" — *Ashwell.*

Prof. *West* adopts very nearly the same ideas as *Ashwell* and *Churchill.* He admits the frequency of *acute* inflammation of the menstrual organs *as a complication of puerperal peritonitis,* but not otherwise. And as to the frequency, symptoms, and importance of the *sub-acute* form of the disease, he thinks they have been greatly overrated by the few medical writers who advocate them. He says, "Some facts are indeed well known and universally admitted, such as the frequency of acute ovarian inflammation as a complication of puerperal peritonitis, its rarity in other circumstances; but *the frequency, the symptoms,* and *the importance* of the more chronic forms of inflammation of the ovaries are questions which have received very discordant replies, and for whose final decision data appear to me to be still wanting." Again he says, "The *ovaritis,* which is chiefly dwelt on by medical writers, is said for the most part to be either *sub-acute* or *chronic* in its character. It is an affection supposed to be capable of lasting for many years without leading to any grave alteration of structure, though occasioning much functional disorder, and producing much local suffering. Disturbance of menstruation of various kinds, sterility, and pain in the abdomen more especially pain referred to one or other iliac region, are the symptoms commonly assigned to this chronic ovaritis; and, indeed, a very large proportion of the ailments that have

been referred by some observers to inflammation of the cervix uteri, and ulceration of its orifice, have been attributed by others, equally confident, to chronic inflammation of the ovary. My own impression is that a larger share has been assigned to chronic inflammation in the production of these symptoms than can be proved to be really true."

Now, let us compare what the professor has just said with what he says subsequently; and perhaps it may seem as though he was disposed to dodge the question by *denying* the frequency of inflammation of the ovarian *substance*, but *admitting* its frequency *in its peritoneal covering* and the *Graafian vesicle*. And what are these, pray, but parts of the ovaries? The Graafian vesicle has its *rise and origin in, and is completely enveloped by, and in fact constitutes a part of, the substance of the ovary;* and as to its peritoneal covering, we refer to Prof. *Arthur Farre*, who says, "The ovary is so *closely invested by this peritoneal lamina, that no effort with the scalpel will suffice to detach it from the tunic beneath.*" — *Cyclopædia of Anatomy and Physiology.* Prof. *West* says, "We *often*, indeed, find the evidences of circumscribed peritonitis about the ovary;" that is, inflammation of its outer or peritoneal covering. Here, certainly, he admits a "frequency" of the disease. "It is," says he, "*in the Graafian vesicles themselves* that we find, as indeed might be anticipated, *the most important results of inflammation;* and *such inflammation is of great moment*, from the circumstance, that, in some cases, it is probably *the first step in the production of ovarian dropsy.*" Here he certainly admits the "importance" of the inflammation. "More important than the changes produced by inflammation on the exterior of the ovary are *those alterations in their substance, and especially in the Graafian vesicle.* The *mere substance* of the ovaries does not, indeed, except in the puerperal state, often present appearances indicative of inflammation or its results. Affections of the ovarian tissue (substance), apart from the

puerperal condition, are, I believe, almost always *secondary, and subordinate to those of the Graafian vesicles themselves.* Thus, when the functions of the ovaries are no longer exercised, and the ovules are not in the course of production and maturation, we find the substance of the organ shrunken, dense, and frequently intersected by white lines of firm cellular tissue; and just in a similar way do we find it swollen, congested, and infiltrated, in connection with a turgid state of the Graafian vesicle, and with the presence of evidence of inflammation about their coats. In these circumstances, indeed, we may find the *whole of the ovary considerably increased in size;* but *my own experience corresponds with that of Kerwisch*, who says that it is extremely unusual for the organ in the unimpregnated condition to be enlarged by an *inflammatory affection* of its stroma (substance) to more than *double* its size." And here he admits most certainly the "symptoms" of the disease.

The professor furthermore says, that notwithstanding we "often" find evidences of inflammation of the peritoneal covering of the ovaries, yet "we find them in cases where there have been no symptoms of an urgent character during life, and often, indeed, when no symptom of any kind existed." If "evidences" of inflammation of the menstrual organs were "often" found after death, most certainly there *must* have been *some symptoms* of that pathological condition during life, and would probably have been discovered if *properly* sought for. Touching this matter, and the frequency of ovarian inflammation, let us refer to the testimony of other medical men of celebrity.

"Nothing can more forcibly prove either the difficulty of diagnosis of ovaritis, or the little attention paid to its diagnosis, or, in other words, the ignorance of this form of disease, than the fact, that out of thirty-seven cases of the puerperal form observed by Madame Boivin and Duges in the years 1819, 1820, only *two* were correctly diagnosed

during life. The existence of ovaritis in the other thirty-five cases was subsequently proven by post-mortem examination; and doubtless the same disease has escaped detection in many of those who have recovered from puerperal fever." — *Tilt.*

"Of all the organs of the human body, scarcely any seem so prone either to functional or organic disease as the ovaries; for I can with truth say, that I have rarely, when examining these important organs after death, found them entirely healthy." — *Ashwell.*

"Of all the organs of the human frame, none are so often affected by disease as the ovaries." — *Neumann.*

"If I wished to enumerate all the lesions of the ovaries and oviducts which I have seen in my dissections, this letter would be the longest of all." — *Morgagni, forty-sixth letter.*

"Every one at all accustomed to examine dead bodies must have seen a variety of examples of disease in the ovaria, where no symptoms (?) of such complaints were displayed in the lifetime of the patient. The author has met with large abscesses in them, and in other parts, where no evidence had existed that such complaints were present." — *Sir C. M. Clarke.*

Dr. *Robert Lee* tells us that "the adhesions between the ovaria and the Fallopian tubes, being so frequently met with in examining the bodies of women of different ages and conditions, prove that slight attacks of inflammation of the peritoneal coat of the ovaria are not of rare occurrence, and that their presence is seldom discovered during life." — *Cyclopædia of Practical Med.*

"How frequently have authors noticed the numerous anatomico-pathological lesions of the ovaries! But of what avail such information, if they do not describe their cause and symptoms?" — *Kruger.*

"Our ignorance of ovarian inflammation is one of the strongest proofs that can be given of the little attention

uterine pathology has received." — *British and Foreign Med. and Sur. Review*, January, 1850.

"I am persuaded, however, that our knowledge of the disorders of these important organs (the ovaries) is vague, and that the most serious of their maladies are of a nature so insidious as to allow them to become considerably advanced, and firmly established, long before they are detected by the pain or inconvenience or interrupted functions to which they give rise." — *Prof. Meigs.*

Notwithstanding Prof. *West's* extreme reluctance to subscribe to the frequency of inflammation of the menstrual organs, yet he indorses the opinion expressed by Dr. *Churchill* of Dublin as regards the frequency of a class of affections the result of ovarian *irritation*. In describing this "ovarian irritation," he says, "It [the pain] is ordinarily dull and aching; is accompanied by tenderness in the iliac region, in which situation a degree of fulness may often be detected; though careful percussion will discover that this fulness is due rather to presence of flatus in the intestines than to the existence of any solid tumor. Though this pain seldom subsides completely, it is apt to be increased in paroxysms. Walking, riding, exertion of any kind, and sometimes even remaining for a short time in the erect posture, considerably aggravates it. Menstruation almost always adds greatly to its severity; and sexual intercourse nearly invariably increases it, sometimes even induces a paroxysm of great violence. The extent of the pain is very variable. Always severest in the situation of one or the other ovary (and, for some unexplained reason, generally in the situation of the left), it is sometimes limited to that spot, but, in other cases, extends more or less to all the pelvic viscera. Difficult, frequent, and painful micturition is then always experienced; and defecation is likewise often attended or followed by severe suffering. While pressure in the iliac region is always painful, a vaginal examination sometimes causes little inconvenience. In

other cases, however, it is productive of pain which lasts for several hours, and this even though no trace of disease may be detected. (?) In some instances, indeed, in which the suffering produced by examination was most severe, the uterus was smaller than natural; a condition, which, when coupled with sterility of the patient, seemed to indicate an imperfect development of the whole sexual system. In those instances where the patient's sufferings were the severest, there were almost always unmistakable signs of hysterical temperament, — often very obvious symptoms of hysteria; while, even when this was not the case, the sudden aggression or sudden cessation of the pain was sufficiently *characteristic of its neuralgic character.*" To all of which we reply in the language of Dr. *Ashwell* of London, "Dull and heavy pains in the region of the ovary, lasting for months, are the consequence of *chronic inflammation of the ovaries.* I mention this circumstance because they are *too often regarded as neuralgic,* and treated accordingly." We are very well aware that *pain* and *irritability* may exist in an organ apart from any inflammatory action; but if the above *exposé* of "ovarian *irritation,*" taken as a whole, be not something *more* than "irritation," if it be not the heightened vascular and nervous sensibility of an inflammatory congestion, we certainly do not understand what the characteristic symptoms of that morbid process are. Notwithstanding his friend Churchill suggests, in the first instance, the above idea of "ovarian *irritation,*" with its multiplied symptoms, and furnishes the language used in expressing the idea, yet he (Churchill) gives the same symptoms to ovarian *inflammation.* He says, "The patient suffers from deep-seated, severe pain in the pelvic cavity; and, when the disease is limited to the organ itself, the situation of this pain, which is accompanied with a sensation of burning, is very well marked. An aching sensation extends to the groin and thighs, with great weariness. The evacuation of urine and

fæces is performed with pain and difficulty. If we examine the lower part of the abdomen on either side, or on both (for the attack is not always limited to one ovary), we may often find a slight puffiness or swelling; and, upon pressure, this part will be found very painful." *Churchill* also gives the following case (abridged from Lowenhardt), which, he says, "very well illustrates the symptoms presented by this disease" (inflammation of the ovaries). "Mrs. S——, aged forty years, of middling stature, delicate figure, and florid complexion, mother of several children (the youngest of which is eight years of age), having hitherto enjoyed good health, was attacked on March 12, 1829, with pains in the abdomen, when the catamenial period was just over, in consequence, as she supposed, of catching cold: these pains increased considerably the following day, and compelled her to keep in bed. She complained of a continued throbbing pain on the *right side of the abdomen*, in the *ovarian region*, and a violent desire to pass water, accompanied with much painful scalding, — the urine red and clear. On closer examination, the abdomen appeared nowhere enlarged or tender, *except in the above-mentioned spot, which was somewhat swollen;* and *pressure here increased the pain considerably.* The vagina was hot, but not painful; neither was the rectum: but, upon examination with the finger through this passage, the *ovary of the right side* of the uterus was found *swollen and painful.*"

It is not a little surprising to witness with what ridiculous tenacity men cling to the opinions of those who have gone before them, and how little use they have for any one that is in the habit of obeying his own spirit, instead of following custom. The profession always love a member that affiliates with them, that possesses a genius for being moulded to the pattern of their own minds; but woe to that man who sets up any notions of his own, or adopts a belief in opposition to the tenets of leaders that have the ear of the public! — leaders that have outlived their

energy, but not their impatience of rivals. Any sin may be forgiven except that of thinking and acting for one's self; except that of incurring the displeasure of those who hold stations for which they are not fitted, and who have, by administering to the credulity of men, won their confidence.

One of the earlier fathers of medicine once said, "Mulier est propter uterum," — "A woman is what she is on account of her uterus;" and ever since very many of the profession have been pleased to adopt the same belief. Whilst there is in it much of truth, yet it should be taken with many grains of allowance. The ancients were close observers, but as liable to error as are men of the present age. They have, however, set us an example, and every respect is due to their meritorious exertions. But sacred as is the duty of acknowledging what they, long before we had a being in the world, have done in the way of advancing the science of medicine, yet we are equally bound not to forget that they have confided to us the business of a more rigid scrutiny, and of farther and deeper research in general: hence, if we would *rightly* honor the fathers of our science, and if we would *rightly* follow their example, we must, as they did, think and examine *for ourselves*, and not merely echo just what they say, and just in the way they said it before us, and thus, like the flock following the bell-wether, blindly trot on in the path which they trod.

What a multiplicity of opinions exists as regards the true nature of woman's chief infirmity! We are told by Dr. *Bennett* that the chief disease of woman is *ulceration of the neck of the womb.* By *Simpson* and by *Hodge* we are taught to believe that *deviations of the womb* from its normal position are the great causes of her manifold infirmities; by *Tyler Smith, hyper-secretion of the mucous glands of the neck of the womb; by Boivin and Duges, uterine catarrh of the body and neck of the womb; by Recamier, inflammation and ulceration of the womb; by Lisfranc*

congestion and engorgement of its neck. *Chomel* regarded *granulations of the os uteri* as the first great cause of woman's suffering, and *Velpeau* saw in *flexions of the womb* the primary element of uterine disease. And it is no doubt true that the great mass of the profession of the present day *see in the womb* the great source of woman's infirmities. They regard that organ as the *primary* one of the sexual system, and that from its diseased condition go forth all the ills that woman is heir to. Irritable, enlarged, congested, inflamed, ulcerated, displaced uterus is the Alpha and Omega of all their ideas: it is their faith, their joy, their midnight hymn, their dreams, their waking hours, their paradise. And their first, best, and all their treatment is directed to that organ; but with what success, let the thousands of sick and suffering, weakened, enervated, and exhausted women of the country answer.

We do not believe in the idea; and the success of our treatment attests to our correctness in discarding it. Uterine regarded as a primary disease we believe to be a great mistake, and the treatment usually adopted, so far as woman is concerned, to be as the weapon of death in the hands of Azrael.

We are also confirmed in our idea for reasons already and yet to be given; and, besides, neither the "touch," nor ocular observation, in the great majority of cases, discloses any symptoms of congestion or displacement or tenderness, or any morbid process whatever. That there *may* be tenderness, displacement, congestion, inflammation, and the womb in a highly irritated condition, in many instances, there can be no question; but is this condition a *primary*, or *secondary* one? We believe it to be secondary in the great majority of cases. "Very certainly, *many* of the cases of puerperal *metritis and peritonitis* (inflammation of the womb and peritoneum) *commence with pain in the iliac regions;* and, when the case has proved fatal, dissection has revealed *greater ravages in the ovary* than else-

where: and it is by no means rare to find the organ filled with pus, or converted by inflammation into a mass of softened tissue which had undergone the process of *ramollessement*, one of the results of inflammation in this special tissue."— *Prof. Meigs.*

We are satisfied, that, ordinarily, uterine is a *secondary* disease, and induced by a morbid stimulus transmitted from the menstrual organs. We adopt this idea from the fact, that, before puberty, diseases peculiar to women are extremely rare; and after the menstrual organs lose their influence over the sexual system, and menstrual life terminates, irritable, enlarged, congested, inflamed, ulcerated womb, leucorrhœa, hysteria, &c., vanish; organic action becomes more active; and the heightened and diseased sensibility, morbid discharges, &c., become by degrees less and less, until they disappear entirely.

As is seen, there is much conflict of testimony among medical men as regards the frequency of ovaritis; and it is no doubt true that its frequency has been overrated. It would be strange if it were not true; for very generally, when any thing in the shape of a new idea is once started, it is run till the thing is "run into the ground." But the idea is not to be rejected as without value, and very high value too, because some of its promulgators carry it to extremes. Though the frequency of sub-acute inflammation of the menstrual organs may have been overrated, yet we believe it to be the ONLY pathological condition that can be diagnosed in the *great majority* of those cases which have been generally regarded as *uterine;* for, in a vast majority of those cases, no pathological condition whatever of the womb can be discovered, no mal-position, no ulceration, no inflammation, no engorgement, — nothing, in fact, but that deranged, nervous sensation which HAS BEEN TAKEN AS EVIDENCE of uterine derangement.

Astruc ("Diseases of Women") says, "The inflammation of the ovaria is always attended by heat and pain in the

place of the belly where they are placed; *but these symptoms are almost always attributed to inflammation of the uterus,* which is joined to that of the ovaria."

"*M. Portal* asserts that he has *often* met with patients who have experienced all the pathonomonic symptoms of inflammation of the uterus, but who, after the lapse of some time, and subsequent to their apparent recovery, became subject to fulness, and, in fact, to very great intumescence in one or both iliac regions, for which they took various remedies without advantage. On inspecting the bodies of such persons after death, *he found the uterus perfectly healthy;* whilst the ovary of one side, and in other cases of both sides, together with the ligament or ligaments, round and broad, of either or both sides, presented the appearance of great engorgement." — *Davis, Obstetric Med.*

That a sub-acute inflammatory condition of the menstrual organs will be found in the great majority of those cases usually referred to the uterus, provided a proper examination and investigation be instituted, we are positive. It has not been found, for the simple reason that it has not been sought for. "Chronic ovaritis forms an important element in the most distressing cases of uterine disease, when it has told most severely on the general health; and, if this remark has not been previously made, it is because the coexisting uterine disease *seemed* to render unnecessary *the search after ovaritis.*" — *Aran.* To discover a sub-acute inflammatory condition of the ovaria, in very many cases requires not only considerable experience, but much tact; for the organs are situated deep in the pelvis, and are furnished with a dense fibrous capsule, which, though elastic, and admitting of vast expansion in the course of time, are yet not capable of yielding so as to allow of much swelling in a short period. Indeed, "when inflammation of the acutest kind attacks these organs, and ends in the formation of matter, proving fatal, it does not lead to any great increase of their size, but to softening and disintegration

of their tissues."—*West.* When their peritoneal investments are implicated, as in some cases of painful menstruation, a well-circumscribed swelling in the iliac region is often readily discovered; and its locality, the character of the pain, &c., will distinguish it from that inflammatory action which sometimes supervenes in the cellular tissue about the womb. There are cases, however, where no external manifestations can be discovered, and where only a careful examination *per vaginam* and *rectum* will disclose the disease.

The menstrual organs, and the oviducts or Fallopian tubes, have by all early writers, and by very many writers of the present day, been spoken of as *appendages* of the womb (uterine appendages); and they are regarded by the great mass of the profession as subsidiary to the womb, and of secondary importance. This error originated from ignorance as regards their true character, and also from their diminutive size. That the menstrual are the primary organs of the sexual system, and are physiologically of higher moment than the uterus itself, and originate those acts to whose due performance the womb does but minister, and that the other organs of the sexual system are subsidiary and dependent organs, no one can, in the present day of advancing knowledge, well deny. As the male organ is but an appendage to the testes, so is the uterus but an appendage and subsidiary to the ovaries. The male organ is the medium through which the vivifying fluid secreted by the testes is transmitted. The ovaria produce and evolve the ovum; and the uterus receives it, and is the medium through which it becomes vivified by the male sexual element. The new being is produced and acquires the means and power of self-existence in the ovary. At a further stage of development, it is transmitted to the uterus, from which it draws nourishment from the mother; and, at a later period, it draws its support from the breast. The breast, however, is not indispensable, as all know; nor is the uterus, as is

seen in cases of extra-uterine pregnacy, where the ovum remains in the ovary or in the Fallopian tube, or falls into the peritoneal sack, and never enters the uterus.

The ovaries and testes are the primary organs, and of higher moment; while the uterus, and the organ of intromission, are secondary and subsidiary organs. In some classes of birds, fishes, and oviparous reptiles, there is no uterus, nor any organ of intromission; they are not essential, from the structure of the animal: but in all are found the higher and more essential parts, — the ovaries in the female, from which germs are evolved; and an organ in the male which secretes the fecundating fluid.

Touching this matter, Dr. *Tilt* says, "I object also to the term *appendages* or productions of the womb, because, in the hierarchy of our organs, the ovary ranks above the uterus, which is, in fact, as much the appendage of the ovaries as the urinary bladder is that of the kidneys: these hollow organs are equally subsidiary in their different purposes to the function of the respective glandular structures with which they are connected. When there is no ovary, the uterus, should it exist, does not menstruate. It is the *ovary which calls the uterus into action*, imparting to it a stimulus which is either healthy or morbid, periodical or continuous."

Until the menstrual organs become fully developed, and capable of exercising their influence over the other organs and tissues of the sexual system, woman is ordinarily free from the diseases peculiar to her sex. Dr. *C. Locock* (physician accoucheur to Queen Victoria) says, "Before puberty, and after the cessation of menstruation, the female differs but little from the male in the character of disease, unless in those points which may be considered as accidental, such as organic diseases of the sexual organs."

Full development of the ovaries, as we have seen, takes place at puberty. The young woman may arrive at the age of puberty with womb, vagina, and external genital organs,

in full state of development; yet, if there be no menstrual organs, she will be free from her peculiar diseases. But if the ovaria are present, and fully developed, and capable of exercising their influence over, and transmitting their physiological menstrual stimulus as well as morbid stimulus to, the womb and vagina, then it is that her day of suffering commences; then it is that she becomes subject to a multiplicity of her peculiar ills which exhaust, enervate, weaken, and render life any thing but desirable. She drags or through a sickly existence; the womb, the vagina, the entire sexual system, becomes by turns the seat of disease; the womb becomes congested, swollen, inflamed, enlarged, hypertrophied, and ulcerated, and the vagina sore, inflamed, and excoriated; hysteria in all its multiplied shapes and forms, and leucorrhœa with its weakening discharges, become, with her, common infirmities. Thus she suffers, has suffered for thirty years. Now, if her sufferings have arisen from the womb, if she is what she is on account of her uterus, if her womb is the cause of all her multiplied infirmities, then, indeed, does she stand a fair chance of rolling on through life a victim to her many peculiar ills. But she passes that crisis in her existence known as the "change of life." The ovaries become diminished in size, shrunken, and atrophied; they no longer transmit the menstrual or any other stimulus; they have lost their influence over the sexual system forever; and what do we now behold? We see that the health begins at once to improve, and all the multiplied ills that have for thirty years rendered life almost insupportable vanish and disappear. Woman looks forward with pleasure to this golden period of her existence, when the aurora of the day of deliverance from pain and sufferings of maternity shall appear with its rosy light in the east, — a day splendid and glorious, — when she, whether married or single, whether blessed with children or denied this great privilege of woman, shall no longer, without cessation or repose, be a martyr to neuralgic complaints; always

dying, but still surviving. The "change of life" gives hope; the mind and spirit rejoice. It delivers her from wretchedness, from moral, mental, and physical suffering. It accomplishes her ransom, her emancipation, — "an emancipation so great, so admirable, and so prolific of happiness; an emancipation holy, great, salutary, productive, and one that will give new life and joy and peace, brighten the darksome breast, solace those who droop and mourn, lull the soul into a state of peace and good-will towards men, and ineffable love and thankfulness to the great Giver."

Who shall say that the womb is the primary organ of the sexual system? Who shall say that woman's diseases have their origin in that organ?

If, then, the womb and vagina are diseased only when subject to the influence of the ovaries, must we not regard those organs as the points whence emanate that influence which is the cause of disease? and are not they the organs which demand the application of our remedies?

If, as Dr. *Bennett* ("Diseases of the Uterus") would have us believe, "the symptoms given as indicating the positive existence of sub-acute ovaritis may be, and very frequently are, met with as mere sympathetic conditions depending on the presence of disease in the uterus or its neck, and not on its existence in the ovaries themselves," it strikes us that we should see something of these "diseases of the uterus or its neck" before puberty; but we see nothing of the kind. We see them only after the ovaries are matured, and capable of transmitting their influence to the womb. Dr. Bennett has given us in his book a list of three hundred cases of diseases of females: but, in the entire number, not a single case of disease appears to have arisen before puberty, and not more than eleven or twelve continued after "change of life;" and four or five of these, *if not all of them*, were in consequence of accidental causes, tumors, or cancerous ulcerations.

The doctor also says that the ovaria *are not liable to*

disease, because of their fibro-cellular structure; and that, "throughout the economy, it is the *mucous and serous membranes* which are most frequently attacked by inflammation, especially by sub-acute and chronic inflammation; parenchymatous organs, especially those of a *dense, non-vascular structure*, enjoying comparative immunity." But the ovaries *are not* "of a dense, non-vascular structure:" on the contrary, they are, as we have seen, "sometimes of a pale pink, but more often of a bright red color, *from the large number of blood-vessels*. . . . When so examined (by the microscope), the stroma (substance of the ovary) is found to be *composed mainly of blood-vessels*." — *Arthur Farre: Cyclopædia of Anatomy and Physiology.* And we have seen, that, every twenty-eight days, this soft, spongy, and vascular tissue undergoes a process of vital turgescence and engorgement, which is in itself "*almost* a disease;" and that the merest accident is sufficient to exaggerate this physiological process into a morbid one. And so far as regards the "mucous and serous membranes" being more frequently attacked by sub-acute or chronic inflammation than other tissues of the body, it is undoubtedly true; and for this very reason — the outer coat of the ovary being a serous tissue, and subject to a periodical turgescence through ovulation, and continually vibrating between a quiescent and a highly-excited state (alternately pale, flaccid, red, and swollen), exposing it, and the soft, spongy, erectile, and vascular stroma, or substance of the ovary, to a multiplicity of accidents to which tissues of an unequal rate of vital functions are liable — are these organs *oftener the seat of disease* than any other organ in the human body, and the chief agents in the communication of morbid stimulus that induces the many forms of uterine disease.

"We can have no hesitation in believing that the ovaria and Fallopian tubes must, for many years of female life, *be common seats of disease*." — *Ashwell.*

"We believe no *disease is more common* than, though so little understood as, ovaritis." — *Tilt.*

"Ovaritis is probably of *much more frequent occurrence* than is generally supposed." — *Prof. Haston.*

"Of all the organs of the human body, *none are so often affected by disease* as the ovaries." — *Neumann.*

Dr. *Bennett* also remarks, that "if you merely treat the patient for ovaritis, and neither examine nor treat the womb, they [ovarian pains] either continue indefinitely, or return in a short time." While we do not for a moment admit this to be true, yet, if it were so, it does not disprove that the infirmity had its origin in the diseased ovary. If a diseased ovary has transmitted a morbid stimulus that has lighted up disease in the womb, the medical adviser would come far short of his duty towards his patient if he did not give both organs attention in the way of treatment; for he knows, or ought to know, that, if disease of the womb was produced by disease of the ovary, the former cannot be cured so long as the latter continues. He knows, also, that, if there be much disease of the womb, it will re-act upon the primary seat of the disease. The diseased ovary lights up a disease of the uterus; and, in return, the diseased condition of the uterus reflectively prolongs the disease of the ovary.

"Acute and chronic ovaritis *is much more common than is generally admitted.* For the last few years, during which I have given more attention to the condition of the ovaries (never failing to examine them, as well as the womb, in every *post-mortem* examination), I have become surprised at the frequency of ovaritis alone, or associated with internal or chronic metritis (inflammation of the womb). If, when these are cured, the old pains survive as strong as ever, *they are due to the persistence of ovaritis.*" — *Aran.*

Though small and insignificant as the menstrual organs may appear when compared with the womb, they are not only the primary organs of the sexual system, but govern the whole physical, mental, and moral condition of woman. They give to woman her sexual character If these organs

have never existed, though there be a fully-developed womb, vagina, and external genital organs, she is not a woman; for she can evolve no germ. If, on the contrary, these organs do exist, though there be neither womb, vagina, nor external genitals, she can be nothing else but a woman; for she is endowed with a germiferous faculty. The ovaries are the organs whence flows the stream of human life. They are the organs through whose influence the blood becomes directed to the other organs of the sexual system, and by which they become fully developed, awake from their torpor, and increase in their sensibility. The womb receives an increased supply of blood, becomes augmented in size, matures, and finally becomes periodically swollen, congested, more succulent, heavier, and the outlet of that sanguinolent fluid known as the catamenia; and the vagina, at these periods, becomes incited, through the same influence, to pour forth an increased secretion of acid mucus as a solvent of the menstrual fluid, preventing its coagulation and detention within the canal; the vagina becomes endowed with a capability of dilatation, and the cellular tissue surrounding the canal a seat of a deposit of fat, which swells, and gives an elastic contraction to the vulva; a luxuriant growth of hair begins to cover the *mons veneris;* the nymphæ become more swollen and red, the hymen more distended; the clitoris (whose anatomical constitution shows it to be the analogue in female of the male parts) becomes endowed with the most intense erotic sensibility: and, except there be that elevation of mind which acts by the decrees of Wisdom, fierce will be the struggles of desire when its fires are once lighted. It is through the ovaries that pregnancy occurs; and they are the organs on whose integrity depends that normal condition of the womb which enables it to retain its embryo until fully developed, — the organs that incite the womb to the action necessary to the expulsion of the fœtus when it has attained its proper growth and development. It is through the influence of

the ovaries that the hips, breasts, neck, throat, limbs, in fact the entire person, becomes developed from the lank figure and unrestrained movements of the girl into that characteristic luxuriance of woman whose splendor of charms rivets the attention. It is through their influence that the head becomes adorned with full, rich, clustering locks, which heighten the dazzling fairness of the face and bosom as they fall in waves upon them. It is through their influence that the forehead becomes high, smooth, and luminous; the eyes majestic in depth and liveliness, attractive, fascinating; the countenance sensible, tender, and engaging; the lips vermilion; and the teeth near allies to the other vivid and animated features. It is through the influence of these organs that the neck becomes swollen into beautiful proportions, uniting to full and falling shoulders with a symmetry that completes every expressive wave and line of beauty. It is through the influence of these organs that the heart sends the blood to the cheeks, and throws the softest splendor around her assemblage of graces; that the complexion acquires its peculiar bloom of health and beauty; the voice its full, mellow, and more sonorous intonation; and every feature that sparkling brilliancy of an expanding intellect that so engages the attention. It is through the influence of these organs that the voice acquires its purity and richness, reaching without effort the most elevated notes, while it deluges with cadences and passages constantly changing and succeeding each other with marvellous rapidity. It is through the influence of these organs that the chest becomes more expanded, the respiration more free, the heart more forcible in its pulsations, and the circulation more active; that the breasts augment in size, become prominent, firm, and rounded; that the nipples enlarge, and become endowed with much sensibility, and acquire the state of erection. It is through the influence of these organs that the whole pelvis enlarges, giving breadth and voluptuous swell to the

hips, and graceful swing to the carriage; that a deposit of fat takes place, lending roundness to the limbs, grace to the contour, communicating to the body an elasticity, fulness, and softness, defining its outlines, and forming those fine and delicate contours which make the possessor always attractive, charming, and beautiful beyond all statue, picture, or poet's dream. It is through the influence of these organs that the young woman becomes materially changed, evincing disinclination to share in the sports of her former companions, and becomes all gentleness and timidity. It is through the influence of these organs that new life, firmness, and vigor are given to every organ and tissue of the body. By their influence over the brain, energy, noble and generous impulses, enthusiasm, and the elements of genius, suddenly burst forth. No matter what may be the amount of effort, attention, industry, cultivated patience, application, or perseverance, bestowed, except there be fully-developed and healthy menstrual organs, she can enjoy no proud and enviable conquest of fame, nor attain to any proud and emulable station in life. These organs are the corner-stones upon which rests the superstructure of greatness and consequent immortality. On their presence, maturity, and healthfulness depends her intellectual standing in society, — whether the mind is to possess faculties susceptible of great culture and expansion, and of enjoyment consequent on high and refined attainments; or whether she is to fall short of the great purposes for which she was created, with a mind barren, and productive of no good. As these organs advance in their ultimate development, the mind gains one truth after another, acquires one principle after another, until at length, when they have arrived at the period of their full development, we see, as life advances and the elements of genius become unfolded, the light of intellect as a bright luminary ascending higher and higher, and ever brightening till it gains its brightest meridian splendor, and shines as a star of the first magnitude in the

firmament of greatness. All that is lovely, sweet, voluptuous, tender, and endearing; the emotions of jealousy, the caprices of affection or antipathy, which submit not to control; her modesty, her gentleness, her timidity, her tenderness, and sensibility, all charmingly blended with constancy and love, — spring from the influence of these important organs. They influence her judgment; they imbue her with those intrinsic qualities of mind and disposition which inspire respect and love, and fit her to reign queen over man's domestic life and associations. They give to her her fidelity, her devotedness, her patient endurance, perpetual vigilance, and forecast, and make her cling to and watch over man whilst his physical nature is bowed in the midst of fears.

If these organs have never existed, no menstruation will take place, even though the womb be present and fully developed. She will be subject to no ills peculiar to woman; pregnancy cannot occur; the pubes will be hairless, or nearly so; the upper lip bearded; the pelvis contracted; the voice husky; the stature small; the face long, thin, and tawny; the features cold, rigid, and pale; forehead low; hair thin and coarse; eyes small, twinkling with maliciousness; eyebrows thick and bushy. The full development of the other generative organs, and a full and rounded figure, will be wanting; and her soul will be benumbed in her shrivelled body. Her cold, dull glance will press upon one like a mantle of lead. There will be none of that beauty which beams from the brow of the maiden possessed of all her organs and functions. Her countenance will be mute; the structure of her mind will be volatile, whimsical, exacting, and essentially vulgar; her judgment will be wanting in solidity; she will possess no elevation of character or sentiment, and her intellectual faculties will be wanting in cultivation. She will feel an antipathy, a profound aversion, to every thing that is beautiful; and her heart will be untractable, her disposition haughty, with a will of iron, and ca-

pricious; the tone of her voice dry, imperious; and her words will pass away without leaving any traces behind them. If, perchance, her affections become engaged, the anomaly will be attended by cruel consequences; for, where she cherishes one, she hates a hundred more. If flattery escape her lips, it is employed with that most dangerous tact which draws secrets from the simple and unsuspecting to control at some later period the dupes of her cunning; if employed upon those whom she is well aware she is unable to dupe, its exceeding translucency discloses underneath concealed cynical innuendoes. If she bestow marks of affection and caresses, no tenderness prompts her, but a desire of amusing herself with the aversion and terror which the act produces. Subtle, adroit, penetrating, and formidable in consequence, fearing nobody, she assails every one. Loving cruelty in epigram, and roughness in jesting, the vulgar of the opposite sex are more at ease with her than with a man, and less embarrassed than with a woman. Her piety will be hypocrisy, a tribute to appearances. Of babbling disposition, egotistical, with pretensions to wisdom ridiculously exaggerated, and inspired with ambition as men are, and gifted with none of the qualities and graces of women, she enters the arena of political, diplomatic, and woman's-rights discussions; and notwithstanding her perfect urbanity, with moroseness of disposition, caustic wit, and pitiless malice, dealing most deadly blows, with smiles on the lip, and flowers upon the brow, she sacrifices without remorse all who do not adopt sentiments prompted by her coldness and feebleness of heart, and sterility of mind. Her chest will be contracted, respiration constrained, the heart feeble in its pulsations, and the circulation languid. The breasts will remain undeveloped; and the nipples, if there be any, will be wanting in sensibility. The erotic sensibility of the clitoris, and sexual desire, will have no existence. Equally indifferent as to males and females, there will be none of that characteristic gentleness and timidity, none of those inex-

pressible and irresistible charms that rouse the soul, warmth, enthusiasm, and energy of the opposite sex; nothing sweet, voluptuous, tender, and endearing: but, on the contrary, she will be as cold as Nova Zembla's eternal ice, repelling, heartless, selfish, cynical, unfeeling, and wanting in noble instincts and generous impulses; a traitress to her sex, to humanity; a moral sirocco, withering and blasting every flower of beauty in her way.

So, too, when the integrity of these organs becomes compromised through disease, menstruation is disturbed, if not entirely suspended; pregnancy is quite unlikely to occur: if it does occur, miscarriage is imminent, and will take place, ordinarily, at the period of the usual menstruation, — at the time when the menstrual organs have been accustomed to take on their periodical turgescence and congestion. The skin loses its softness, and assumes a dry, harsh texture; the breasts shrink; the hair on the pubes falls out; the form loses its luxuriance and pleasing outline, the voice its sweetness; she becomes equally indifferent as to males and females; her soul becomes less acutely alive to human charities; and trembling sympathies and blessings cease to flow around her from relieved misfortune.

Through the influence of these important organs, the young woman, as she approaches the period of puberty, becomes materially changed. She draws herself away from companions younger than herself, and evinces disinclination to share in her accustomed enjoyments and exercises. She seeks solitude, and strives to avoid observation. She becomes plunged into a state of continued revery, and strives to unravel the seeming mystery of her sighs, which arise without any apparent cause; of her tears, which give relief, she knows not why; of the strange inequalities of her temper, and unaccountable caprices; and her feelings of joy, sorrow, anger, &c., which follow each other in quick succession, — a condition, however, which lasts not long: the veil soon becomes removed, and a new light breaks in upon her.

Her relative position to the opposite sex, and the great purposes of her existence, become unfolded. A new chain of ideas takes possession of her. That which was unintelligible, and fell upon the ear in accents of an unknown tongue, now becomes understood; the impulses of nature now explain themselves; the heart admits her into its secret counsels; interior movements rouse her from supineness; and inclinations hitherto unknown cause her to blush in secret. She now learns what is passing in the minds of men, and understands the meaning of every word, look, and action. Now will she be closely assailed, and learn amidst the intricacies of situation how far she is redoubtable, and the degree of prowess she can oppose to vindicate integrity. Now will she experience what trials await her. She will encounter the world's temptations, and she may feel the weight of its curse. She will struggle with duty; and may, in appealing to her strength and her courage, find but weakness within her.

The ovaries, having reached the period of their full development, inspire a tender regard for man; a regard whose depth and purity and intensity absorb her whole nature; a regard seeking its ultimate expression in sexual union, and which consummates her life and happiness, and governs the destiny of the race. She is no longer a child: the ovaries are perfected, and the curtains of darkness and ignorance have become cast aside, revealing the existence of sympathies within her which she knew not of. The woman has become awakened. The reproductive organs, through the influence of the ovaries, have now reached that period of their development when they become incentives; when they give appetite, which, like hunger, must be appeased, or Nature revolts. Her heart becomes the home of secret longings that are new to her. She may possess skill, learning, beauty; she may have at her command riches, rank, fame, the flattering homage of society, and the approbation of the thoughtless, noisy world: but all fail to ap-

pease those silent, inward promptings which have now destroyed her hitherto tranquil life. Once, solitude was delightful to her; but now a new world, with new hopes and new pleasures, has become opened to her. Imagination has become active, and new thoughts visit the soul. It feels oppressed, is restless, sad, and seeks for fellowship.

The ovaries, now matured, have commenced to cast off ova, which also are matured; and sexual congress is demanded for the impregnation of the evolved ova. The act is attended with the most pleasurable sensations that man or animals can experience. It was so designed to be by the great Framer, and for wise purposes; viz., to insure the continuance of the species here upon the earth, and prevent its becoming again a vast solitude. Her heart now expands, and quickens in its pulsations. Every sensation is raised to an exquisite degree. In her mystic eye there is a nameless power that fascinates. Her every nerve has become surcharged with vitality, and her touch is magnetic. Her look, the sound of her voice, her language, the expression of her eyes, her whole demeanor, court the affections. Warmth and voluptuousness preside over her every movement, which man is equally unable and unwilling to resist. The voice of Nature is speaking within her,—a voice that is law,—a law of all nature, and a law of God. Violate it as she may, repress it as she will, it still exists, or she subdues Nature at her own cost. Every triumph over Nature—Nature which is spontaneous, natural, and healthy—is destructive to the victor. Touching this matter, Prof. *Laycock* of Edinburgh says, "The final cause of all vital action is the reproduction of the species and the preservation of the individual: the latter indeed, in many cases, seems merely subservient to the former. Throughout the whole chain of being, we find the power to reproduce the species is the climax of development, being co-existent with the perfection of the individual: indeed, it would appear to be the sole object aimed at in the changes which

many animals undergo, particularly butterflies, silk-worms, and other insects, which die as soon as they have performed the generative functions. In the higher animals, the mere generation of a new being is but an initiatory part of the reproductive process; the subsequent nutrition and defence of the young animal constituting an important part of the same series of action, and requiring the exercise of numerous instinctive faculties by the parent: so that, while the generative nisus is influencing a variety of the corporeal organs, the mental receives a corresponding impulse; and the desire for sexual congress, the secretion of milk, and the love of offspring, are equally the result of the same reproductive effort."

Up to the eighth week of fetal life, the OVARIES and the TESTES are *one and the same organ:* they possess no distinguishing characteristics. Both form slender, elongated bodies, occupying the same locality below the true kidneys. Both are precisely alike, and are equally the products of the false kidneys. *In after-life they perform analogous functions. Both have the same influence over the general system; and, on their removal, the individual approximates the opposite sex.* "In the castrated male, the form and texture of the body approach that of the female; and the mental faculties seem to partake, in a certain degree, of a similar modification: the voice remains high and clear; and hence the barbarous custom prevailing to the present, in Italy and elsewhere, of making eunuchs for the sake of their high voices in singing. In the spayed female, on the other hand, there is a certain approach to the character of the male. In women in whom it has been necessary to extract the ovaries on account of disease, the bones and muscles have been observed to have a more masculine contour, the voice is harsh like a man's, the breasts are flat, and there is frequently a formidable beard, and hair on different parts of the body."— *Cyclopædia of Anatomy and Physiology.*

As the testes make man manly, so the ovaries make woman womanly. All that is great and noble and beautiful in woman's character or capacity or destiny springs from the ovaries; and just as the absence of the testes, or their destruction by disease or by the operation of castration, affects men, so does the destruction by disease of the *testes muliebrum*, as the ovaries are sometimes called, bring about precisely the reverse in women.

When the *testes muliebrum*, or ovaries, are absent, or remain, through want of proper development, in complete repose, the skin is dry and harsh; and the harder outline and angular harshness of men take the place of those fine and delicate contours which are constant objects of admiration. When the male is similarly circumstanced, that is, when the testes are absent or undeveloped, the skin possesses the softness and delicacy so peculiar to the female; the cellular tissue is more abundant, more replete with fat, which lends roundness to the limbs, and communicates a fulness, softness, and elasticity to the body. *Walker* says, "Eunuchs increase in stature like other men, and even more in proportion; but they have a configuration and habits very analogous to women. . . . To be convinced of the influence which the testes exercise over the muscular power and courage in every species of animals, it is sufficient to observe the difference between a ram and a tup, a bull and an ox, a cock and a capon. . . . The lymphatic glandular system of the castrati is generally gorged and inert. The cellular system becomes more abundant, more loose, and more replete with fat. It is, indeed, known to be a common practice to castrate animals in order to fatten them, and give to their flesh a more delicate taste."

When the ovaries are absent, mustaches and beard cover the upper lip and chin. The same is also observed among aged females who have passed the critical period of their existence, and whose ovaries are shrunken, atrophied, and destroyed, more especially those who have been deprived

of sexual congress. When the testes are absent, the beard never grows. *Hunter* tells us that old hen-birds assume the plumage of the cock; and, from the testimony of *Yarrel*, we find that "when there is a shrinking of the ovaria, from disease, in young birds, the hen-bird assumes, in many instances, the plumage of the male."

When the ovaries are absent, the breasts remain undeveloped, and the nipples are wanting in sensibility. When the testes are absent, the breasts are fully formed, sometimes very prominent, firm, and rounded, and, according to *Vaughn*, sometimes secrete milk. A case of inordinate development of the breasts of a man from wasting of the testes, caused by a blow on the back, is reported in "The London Lancet," vol. i., 1858–59, p. 356.

When the ovaries are absent, the voice is dry, harsh, husky, and wanting in fulness, mellowness, purity, and richness of intonation; and all effort towards its cultivation is a failure. When the testes are absent, the voice reaches without effort the most elevated notes; and we are told by *Walker*, that, "in modern times, castration has been performed in Western Europe, principally in Italy, in order to provide soprano singers for the pope's chapel and the stage of the opera. In Naples, at one time, there were barbers' shops with the sign, '*Qui si castrano ragazzi a buon mercato.*' . . . The narrowness of the larynx is a remarkable characteristic of the eunuch. All who have examined the larynx of the castrati to discover the reason of their preserving the infantine voice have acknowledged the truth of this observation. *Dupuytren*, in dissecting the larynx of a person who had been castrated in infancy, was enabled to satisfy himself of this. He observed, that, in this person, the larynx was less, by one-third, than in adults of the same age and stature; that the glottis was much narrower: so that all these parts resembled those of a woman or a boy. The change that takes place in the voice of castrati is well known; and nearly the same changes are observable in castrated animals."

When the ovaries are absent, the pelvis is contracted and narrow, and the hips wanting in that breadth and voluptuous swell which give graceful swing to the carriage. When the testes are absent, the pelvis is broad, the hips wide, and the knees approximated, as in women. *Walker* says, "In eunuchs, the bones which form the prominence of the haunches are much expanded, and therefore form a pelvis of uncommon capacity; and the thigh-bones are less arched than in man, and the knees more inclined inward, which proceeds from the greater distance existing between the heads of the thigh-bones; in consequence of which, eunuchs, like women, when they walk, render very evident the change of their gravity, marked as it is by the arch which they describe at every step."

When the ovaries are absent, the hair on the head is short, thin, and coarse; and but little, if any, appears on the *mons veneris* at the lower part of the belly. When the testes are absent, the head is adorned with full, rich, and clustering locks, and closely set and abundant over the pubes.

When the ovaries are absent, no periodical flow takes place. When the testes are absent, there is ordinarily a periodical discharge from the nose or bowels, but more generally from the hemorrhoidal vessels. "A fact which is constant, though little observed, is, that castrati are subject to periodical hemorrhages, which ordinarily proceed from the hemorrhoidal vessels. In this case, it would seem that the blood necessary to the development of the reproductive organs and the beard, and likewise that destined for the secretion of the reproductive liquid, is directed towards the hemorrhoidal veins, and distends them, so that, being debilitated, they open, and throw it out. There is then established a hemorrhoidal flux, which gradually becomes periodical. *Ossiander* made this observation, even in many beardless men; and he also observed that bearded women have no catamenia."

We have familiar examples of the influence of the testes over the muscular development of the neck in the stallion, buck, bull, and boar. The ovaries influence the lumbar region instead of the neck, increasing its expansion. When the ovaries are absent, the loins are less heavy, and the neck increased in width. When the testes are absent, the loins are heavier, and the neck small, as in females.

When the ovaries are absent, hysteria and nervous derangements peculiar to women are exceedingly uncommon, if not wholly unknown. When the testes are absent, morbid sensibility and nervous diseases are the constant attendants of a person thus circumstanced; and, on the slightest mental commotion, he falls into delinquium. "Often a profound apathy takes possession of them, and they sink into a gloomy and fatal melancholy."

When the ovaries are absent, the feet and hands are large, bony, and hard. When the testes are absent, the feet and hands are small, delicately formed, and soft; and thus we see, that when the ovaries are absent in the female, and the testes in the male, each approximates the opposite sex.

The change which takes place in the moral disposition of castrati resembles that which takes place in the moral disposition of those women in whom the ovaries do not exist. Realizing their own deformity, — that they are cut off from the ties of humanity, that they are possessed of no seductive exterior full of life and racy freshness, of nothing attractive to the opposite sex, but devoid of all power of fascination, without a single redeeming quality, — and seeing themselves, in the dark flight of their thoughts, isolated in the midst of the world, they feel a profound disdain for every thing and every person; and, whatever may be their apparent exterior, their cold and arid heart swells with that most baneful, most ferocious, and most implacable of human passions, — envy, with all its varied tortures of hatreds, distrusts, and humiliations. Selfishness and indifference,

harshness and cruelty, the most sordid baseness, the most flagrant ingratitude, the most revolting caprice, joined with a contempt for all virtue, and an admiration for all crimes, are their prominent traits. With a soul dark, empty, incredulous, hateful and frozen words only full of gall and bitterness, or cutting repartee or impudence, come from their lips. "Their understanding, in reality, appears to suffer from the absence of those impressions which give to the brain of men so much activity, though that is excited by sexual impressions. It is, indeed, asserted that this faculty is altered from the moment when the knife cuts them off from Nature. *Sinibaldi* says that the minds of eunuchs are changed, and become artful and depraved; and that there never was one of first-rate understanding.

"Even the castrati who acquire some celebrity on the stage of the opera, and in the churches of Roman-Catholic countries, owe a great part of their merit rather to a good organization of the organs of hearing and voice than to their understanding. In general, they infuse even into the music neither feeling nor expression; and it is asserted that not one of them was ever able to compose a decent air.

"*Huart* asserts, that even the person endowed with remarkable genius and great ability, when the testes are removed, begins to lose his genius; and he adds, 'If any one doubts this, let him consider, that, out of a thousand eunuchs who have devoted themselves to learning, scarcely one has become learned.'

"The castrati are cowardly, and incapable of great enterprises. Nares is, perhaps, the only imposing exception to this rule, by having displayed some talent in war. Cut off as he is from all social relations, he can think only of himself, and becomes an egotist from necessity.

"Eunuchs have, moreover, all the defects of human beings. Imperious and despotic in good fortune, they become vile slaves under reverses. They are, perhaps, the most degraded class of the human species — 'cowardly and deceit-

ful, because they are feeble; envious and wicked, because they are wretched.'

"The greater number of castrati see women only to slander them. It is, perhaps, a rage on account of their own degradation that renders them fit guardians of the harem. It is not impossible that 'they find a satisfaction in opposing the slightest amusements of women, as it is the desire of every feeble and incapable being to see others reduced to his own state of impotence.'

"When men or animals are subjected to this operation at an early age, they are much more denaturalized than when it is performed after puberty.

"In the former case, the cause of the great phenomena which characterize puberty is destroyed, and the members never acquire their beautiful masculine forms: the vocal organs remain in the state of imperfection in which they are found at first; the voice continues harsh and acute; and the beard never grows." — *Walker.*

In conclusion, we repeat, that, just as the absence of the testes, or their destruction by disease or by the operation of castration, affects man, so does the destruction of the ovaries by disease bring about precisely the reverse in women. Both — the testes and the ovaries — have the same influence over the physical, mental, and moral developments. All those remarkable changes which occur in girls at puberty are due to the influence of the ovaries. The proof that this is so, is, that when these glands do not exist, or when they remain in the torpor of infancy, none of those phenomena occur.

Mr. *Charles Pears* gives the case of a young woman who died at the age of twenty-nine, in whom the ovaries were wanting. The following appearances were recorded and published in "The Transactions of the Royal Society of London:" "Having ceased to grow at ten years of age, she was in stature not more than four feet six inches high. The breadth across the shoulders was as much as fourteen

inches; but her pelvis measured only nine inches from the ossa ilia to the sacrum. Her breast and nipples never enlarged more than in the male subject. She never menstruated; there was no appearance of hair on the pubes; nor were there any indications of puberty in mind or body at twenty-nine years of age."

In *Pott's* works, the author records the case of a young woman whose ovaries were extirpated by him in an operation for inguinal hernia. He says, "Menstruation ceased, the voice became hoarse, the mammæ shrunk, and hair appeared on the chin and upper lip. Before this period, this female was stout, large-breasted, and menstruated regularly." What proofs can be more complete of the omnipotence of ovarian influence over the character of women? We have also the testimony of Dr. *Robert Lee* of London, who says, "There are certain facts which seem to prove that it is *not to the influence of the uterus, but the ovaria,* that we are to attribute all the changes which take place in the female pelvis, in the mammæ and uterine system, at the period of puberty."

We have also the testimony of *Arthur Farre* (professor of midwifery, King's College, London); and with this we will conclude. Touching the matter of the primary importance of the ovaries, and of the secondary importance of the uterus, he says, "It is only in a practical or obstetric point of view that the uterus can be regarded as the most important of the generative organs. Physiologically considered, it is by no means entitled to the foremost place; for although the presence of the uterus is necessary to the completion of the generative act in its regular course, yet reproduction, to a certain extent, may be accomplished without it. The uterus is necessary to reproduction, first as affording the only channel by which the seminal fluid can obtain access to the ovum, and next as constituting, together with the vagina, the only natural passage for the exit of the fully-matured ovum, which requires this con-

tractile organ to effect its expulsion by that passage; such expulsion not being essential to the generative act, because the fœtus may be extracted by the Cæsarean section without necessary loss of life either of the parent or offspring, while other parts — the Fallopian tubes, for example — may, to a certain extent, perform the offices of a uterus in all that relates to the protection and nutrition of the ovum. Moreover, the entire removal of the uterus may have no other effect upon the individual than that of preventing impregnation and menstruation by the simple abstraction of the parts necessary thereto.

"On the other hand, the ovary, though constituting only a small portion of the reproductive organs, is nevertheless that part to which *all the rest are subservient.* It is the organ which furnishes the generative element essential to the reproductive act. It is that part, which, in a great measure, regulates the growth of the body, and determines the distinctive characters of the sex. It is the organ upon the presence of which depends the sexual passion and the process of menstruation; whose congenital deficiency is indicated by the absence, externally, of all signs of a secondary sexual character; whose artificial removal entirely unsexes the individual; and the decline of whose functional activity, as age advances, is the cause of the generative faculty being lost in the female long before the ordinary term of life has expired, and at a much earlier period than that at which the power of procreation ceases in the other sex." — *Cyclopædia of Anatomy and Physiology.*

Certainly no further proofs are needed to establish the fact that THE OVARIA ARE THE PRIMARY ORGANS OF THE SEXUAL SYSTEM, and organs, too, of great power, influencing the whole being and constitution of woman; ay, and do they not "govern the world by their influence on the nature, extent, and great power of that phrodisiac instinct, which, it must be admitted, controls to a certain extent a very considerable part of the motives and actions of men

and without the incitation of which the entire scene of living nature would soon be blotted out, leaving the earth a howling and desolate waste?" — *Prof. Meigs.*

Accepting, then, these views of the gigantic power and influence of the ovaries over the whole animal economy of woman, — that they are the most powerful agents in all the commotions of her system; that on them rest her intellectual standing in society, her physical perfection, and all that lends beauty to those fine and delicate contours which are constant objects of admiration, all that is great, noble, and beautiful, all that is voluptuous, tender, and endearing; that her fidelity, her devotedness, her perpetual vigilance, forecast, and all those qualities of mind and disposition which inspire respect and love, and fit her as the safest counsellor and friend of man, spring from the ovaries, — *what must be their influence and power over the great vocation of woman and the august purposes of her existence when these organs have become compromised through disease!* Can the record of woman's mission on earth be otherwise than filled with tales of sorrow, sufferings, and manifold infirmities, all through the influence of these important organs?

An inflammatory condition of the menstrual organs cannot long remain without entailing other infirmities or disorders. While such important changes are going on in these organs, the nerves — whose office is to carry sensibility and action between organs and parts — must receive and transmit from the inflamed ovaries impressions which must necessarily produce extraordinary and varied phenomena, according as they act on different organizations; and which give TYPE to the disease. It will be seen, when we come to consider *symptoms* of inflammation of the ovaries, that we are giving as *symptoms* what have been described by systematic writers as *special diseases.* It will be seen, that, in our estimation, the sequences or effects of inflammation of the menstrual organs, and which give type to the disease,

are non-appearance of, suppressed, profuse, and painful menstruation, leucorrhœa, and hysteria, — sequences which, by the great mass of the profession, have been and are now regarded as *diseases, substantive diseases*, rather than effects of a disease, — effects having one common origin, and pointing to one source, one diseased condition, and that diseased condition a sub-acute or chronic inflammation of the menstrual organs; and which, in consequence, have been met with a treatment nugatory, vague, injudicious, pernicious, which has doomed woman to long years of continued suffering.

That the above are often sequences of other pathological conditions, we do not for a moment deny. That they are not unfrequently evidences and symptoms of primary inflammation of the womb, ulceration of its neck, malposition, irritability, and congestion of that organ, we do not hesitate to admit; but that they are, *in the great majority of cases*, sequences of the pathological condition named, we unhesitatingly believe: and that such is their frequency from this pathological condition, may be regarded as the rule; and when from other conditions, as the exception.

In remarking upon painful menstruation, Dr. *Rigby* of London says, "The organ (the ovary) becomes highly congested or actually inflamed: it swells considerably, and becomes intensely sensitive. The pain is of the most agonizing character, and frequently attended with severe nausea, or obstinate and most distressing vomiting. The patient describes it as being different to any other pain she ever experienced, and dreads a return of the attack; its peculiar, unbearable, sickening character apparently resembling the sufferings from orchitis (inflammation of the testes), or from any injury to the testicle in the male." Prof. *Meigs* says, "The pain of dysmenorrhœa (painful menstruation) is a pain felt in the hypogastric region, in either or both of the iliac regions, in the tractus of the

ligamenta rotunda, in the sacral regions, in the thighs, and very frequently in the course of the distribution of the obturator nerves." By most writers of the present day, the pain of painful menstruation is referred to the same locality.

If, then, as is admitted, the great majority of cases of *painful* and *hysterical menstruation* commence with distressing pain and tenderness, with more or less puffiness or swelling in the iliac regions, does it not indicate a highly irritated and congested or inflamed condition of the menstrual organs? and is it not fair to presume that these paroxysms of pain and hysteria have their origin in those organs? And why should it not be considered wise and judicious to meet those indications with an antiphlogistic instead of a brandy and water and ammonia treatment? Who would think of treating the swollen and sensitive gum over a growing tooth with camphor, brandy, and such like stimulating drugs? If such a treatment be pernicious in one case, why not in the other?

If, as is known, *hysterical paroxysms* are usually an accompaniment of painful menstruation, and painful menstruation gives, ordinarily, only prominent symptoms of inflammation of the menstrual organs, what can be the true indications of treatment but those which will relieve those over-congested and inflamed organs?

If, as is admitted, *sterility* always, or very nearly so, follows upon painful and hysterical menstruation (i. e., inflammation of the menstrual organs), does not the infirmity point to that morbid process as its source and origin, and demand its removal ere we can hope to see the infirmity vanish?

If, as all know, just previous to the establishment of the true catamenial flow at puberty, the engorged and congested menstrual organs transmit a stimulus that incites an increased secretion of mucus, in other words, a leucorrhœal flow, also at the commencement and end of each menstrual period, may it not very properly be pre-

sumed that those organs are instrumental, to a greater or less extent, in transmitting a morbid stimulus that incites and keeps up those long-continued and persistent *leucorrhœal* discharges, or "the whites," that so often tax the ingenuity of the medical adviser to treat successfully? Indeed, what other conclusion can be arrived at when we remember that all signs of leucorrhœa and follicular malady of the sexual organs disappear with menstrual life? May not the same morbid stimulus induce not merely a follicular excitation, but a state of congestion, engorgement, and tumefaction of the womb and of the entire sexual system, and the arrest or *suppression* of the secretion, the same as supervenes upon the application of the stimulus of cold, or from violent mental or moral perturbation? and may not the suppression continue for a longer or shorter time, until at last the over-burdened and engorged capillary vessels become broken, and relieve themselves by an inordinate menstrual evacuation, or *profuse menstruation?*

If, as is admitted, the ovaria are the organs that incite the womb and Fallopian tubes to pour out that sanguinolent fluid known as the catamenia, may it not be presumed that in a diseased condition they may lose their power of inciting the womb to pour out this fluid, and amenorrhœa or *retention* be the consequence?

If, as is said by *Tyler Smith*, and subscribed to by a vast number of respectable physicians, the menstrual organs incite the womb to action necessary to the expulsion of the fœtus when it has attained its proper growth and development, may it not be presumed, that, in an inflamed condition, they would transmit, instead of a physiological, a morbid stimulus, that would incite muscular action of the womb to the expulsion of its fruit before it had attained its proper growth and development? These are questions that follow each other in quick succession.

Accepting these views, no matter what form the disturbance may take, no matter which of the types may super-

vene, we have a *cause* at once recognizable, a *locality* indicated; and a treatment may be instituted without hesitation or doubt. A writer in "The British and Foreign Medico-Chirurgical Review," January, 1850, observes, that "amenorrhœa, dysmenorrhœa, menorrhagia, *are more intelligible* as the effects of pre-existing inflammation than as the derangement of a function."

Rejecting these views; regarding non-appearance of, suppressed, profuse, and painful menstruation, &c., as distinct diseases, as things substantive, instead of effects of a disease, — doubt, confusion, bewilderment, will at once arise, and a treatment be instituted that cannot but result in failure. And why? Because an effect is treated instead of the cause, a name instead of a thing; and "blessed salt," "holy water," or a horse-shoe nailed to the door, will ill suffice to ward off wretched health, suffering, and pain that will inevitably follow sooner or later. Misapprehending the true seat of the morbid process, the diseased ovaries are allowed to go on to structural change and disorganization. This occurring, the mischief is past relief, irremedial; and the patient doomed to suffering and pain, seeking consolation in the idea that her irremedial infirmity is a dispensation of an overruling Providence. How little does she dream, though, that a most pernicious treatment has more to do with it than any divine will!

If, however, the above types are regarded, as they most certainly ought to be, as effects of a disease, and that disease an inflamed condition of the menstrual organs, the true indications of treatment are at once obvious, and can be met promptly and energetically with appropriate remedies. We are no longer obliged to deceive our patient by instituting a *palliative treatment* when she expects and demands a *radical cure*. We no longer attack *painful menstruation* and *hysteria* with ammonia, camphor, brandy and water, and the like; nor *suppression* and *retention* of the catamenia with external and internal stimulants to

"bring on" the flow; nor *sterility* with bougies to enlarge the constriction at the neck of the womb, nor with caustics and escharotics to cure its ulcerations; nor *leucorrhœa* with stimulant and astringent washes to the vagina, and "iron" and "whiskey" internally to relieve the "weakness;" nor any longer confess that we are, John-Bunyan-like, floundering about in the slough of despair and doubt, with no clear perception of what we are doing, or what we wish to accomplish, — a not very creditable state of mind truly for a *physician*, who is presumed always to know what he is about.

Churchill says, "Organic disease of the ovaries must always more or less interfere with the uterine functions. The lochia will be checked *and the menses suppressed by it.* If the disease involve the substance of both ovaries, *the power of conception* (at least, *pro tempore*) *will be destroyed*, and *sterility will be the result.*"

Ashwell says, "Dull and heavy pains in the region of the ovary, lasting for months, are the consequence of chronic inflammation of the ovaries. I mention this circumstance because they are too often regarded as neuralgic, and treated accordingly; *painful menstruation and sterility* being their result."

Neumann says, "Of all the organs in the human frame, none are so often affected by disease as the ovaries; *suppressed menstruation, which is a frequent cause of sterility,* being their result."

Dr. *Robert Lee* says, "that in many cases of *disordered menstruation, chlorosis,* and *hysteria,* which we have observed, the symptoms have been clearly referable to certain morbid states of the uterine *appendages* (ovaries and Fallopian tubes); and decided benefit has resulted from the application of those local remedies which were employed with a view of *subduing the irritation, the congestion, or the inflammation* which appeared to be present in these parts of the uterine system." — *Cyclopædia Pract. Med.*

Prof. *Meigs* says, "I have met with many samples of very distressing pain and tenderness in the region of the ovary, connected with *painful* and *hysterical menstruation;* and I deem I had good cause to suppose the ovaries were actually in a state fit to be called ovaritis."

Dr. *Tilt* says, "J. P. Frank, a man of European celebrity, when giving an account of his travels in 1806, mentions that Dr. Cheston of Gloucester looked upon *painful menstruation* as produced by inflammation of the ovaries; and that, on his return to Wilna, he (Frank) attacked such cases by an antiphlogistic plan of treatment, and with much greater success than had formerly atttended the exhibition of stimuli."

Dr. *Rigby* says, "In the sub-acute or chronic form of ovaritis, which is much more frequently met with than the acute disease which I have just described, the local symptoms are better marked, from not being attended with any severe inflammatory attack of the peritoneum or neighboring viscera, although it is *usually* complicated with more or less derangement of the rectum, bladder, and *especially the uterus.*"

Seymour says, "When both ovaries are diseased, the *menses are always absent.*"

Specific Form. — Of the specific form of inflammation of the menstrual organs, — the gouty and rheumatic, syphilitic and gonorrhœal, — we shall speak hereafter.

Pathological Anatomy. — As regards the alterations that take place in the ovary in a state of congestion or inflammation, we have already, when speaking of the phenomena of menstruation, and in the commencement of this chapter, said sufficient, and need not here repeat or add any thing to what has already been said.

IV.

SYMPTOMS.

IN the study of symptoms, it is important to clearly understand that *the effects of a local affection frequently become general.* A morbid action in one part of the body is capable of producing uneasiness or pain and of lighting up diseased action in another part of the body. This takes place through the medium of the nerves, whose office is to carry sensibility and action between, or to and from, all the organs and parts of the body. The morbid action is first carried to the spinal cord, and from the spinal cord reflected or thrown back upon the organ or part that becomes the seat of the disturbance: hence the term *reflex* action. We have familiar examples of this reflex nervous action in the pain in the knee which occurs in disease of the hip-joint; in the right shoulder, when the liver is diseased; in the cramps and pains of the limbs, when some of the pelvic organs are diseased. Over-eating disturbs and irritates the stomach, and produces pain in the head; irritating medicines taken into the stomach do the same thing; a piece of ice swallowed not unfrequently produces pain over the brow.

The more an organ is supplied by nerves, and especially if derived from different trunks of nerves, or from trunks formed by different nerves united, the greater and more varied will be the influence that that organ will exert, and sudden, extraordinary, and varied will be the phenomena produced. Now, the nerves of the reproductive organs are formed from various other nerves, which have relations with those of all the viscera of the abdomen; besides th se, they

are connected with the entire nervous system through the medium of the great sympathetic nerve: and so it is easy to see, that, by these alliances, the ovaries become interested in almost all the affections of the female. It is also readily seen, that, from the multiplicity of their connections with other organs and parts of the body, not only may disease in any part of the system influence these susceptible organs, but, from their great sensibility and important functions, *they may, when diseased, send out influences that must act with great power* on the brain, on the heart, on the lungs, on the stomach, on the liver, on the womb, the kidneys, bladder, muscles; in fact, on every part of the body with which they are connected through the medium of the nerves: and this influence ought to be especially remarkable when their functions commence at puberty.

There is another important particular which should be borne in mind; viz., that the ovaries, when diseased, more readily influence those organs with which they have a direct physiological and anatomical relation than organs with which they have only an indirect relation. It will also be observed that the ovaries more readily involve those organs with which they have a direct physiological relation than those with which they have only an anatomical relation.

The organs physiologically allied with the ovaries are the uterus, breasts, larynx, subtegumentary membrane, skin and its appendages, and the hair and nails. The organs anatomically allied with the ovaries are the kidneys, bladder, large intestine, and the dorsal and lumbar portions of the spinal cord.

The symptoms of sub-acute inflammation of the menstrual organs may be divided into *Local Symptoms* and *General Symptoms.*

Local Symptoms. — The local symptoms embrace not only those that arise directly from the inflamed ovaries, but

those that manifest themselves through the different organs and tissues of the pelvis.

One of the most common of the local symptoms is pain in the lower part of the abdomen just above the pubic bones, or rather on each side of the pubes, near the groin, or between it and the uterus. Pain in this locality, however, is not invariably present. In some it is severe; while in others an uneasiness, or dull, heavy feeling, or fulness, is complained of, often in one groin, but very seldom in both, and generally, from some undefined reason, in the left. Ordinarily, it manifests itself in the same side in the same individual. Sometimes the pain is referred to the womb, at other times to the bladder; and sometimes the lower bowel is indicated as its seat. Sometimes it is described as arising in the groin, and darting towards or through the bladder, or down "deep" into the fundament, and causing more or less of spasmodic constrictions of the sphincter ani muscle.

The degree or kind of pain is extremely variable. In some there is scarce any felt; while in others it is described as acute, lancinating, sharp, darting, &c., commencing sometimes in the iliac region, sometimes in the small of the back, and passing around to the front and down the thighs; in some continuous, in others intermitting. In some the pain is of the most agonizing character, wearing down and exhausting the vital powers, and rendering life any thing but desirable; while in others the discomfiture is so slight, that the disease escapes the notice, not unfrequently, of both patient and physician. Ordinarily, it is not violent, but rather a dull, heavy pain, with sensations of fulness and uneasiness, which become more acute and darting as the menstrual period approaches. The pain sometimes experienced is described as a throbbing in the groin, with burning sensations in the vagina along the urethra, and at the lower part of the sacral bone.

It may be said that inflammation of the menstrual organs

ordinarily commences, or shows itself rather, at the catamenial period. Its advent at this time is characterized with more or less of the symptoms that we have enumerated, and which continue with more or less severity during the turgescence of the organs. The unusual symptoms are perhaps regarded as simply "painful menstruation," and do not particularly arrest the attention; but the diseased ovary remaining more or less enlarged and congested during the interval between the menstrual periods, and the pain and uneasy sensations continuing, the attention is then, perhaps, for the first time called to the disease.

With some the pain is constant, whether in the erect or recumbent position; while with others there is an absence of all pain and of all uneasiness: in fact, the patient feels perfectly well until she assumes the erect position, or commences to move about; then she experiences sharp, darting, lancinating pains radiating from the groin or small of the back, in every direction; or, instead of these, she may experience only dull and heavy pains in the limbs, with feelings of extreme lassitude, and an inability to move; or dragging pains, with bearing down and sensations of an internal weight, that, having no support, must fall away. Sometimes pain is not felt immediately after assuming the erect position; indeed, perhaps not until some little time has been spent on the feet moving about: but it continues afterwards for hours, notwithstanding the patient may resume the recumbent position. Walking, ordinarily, is performed with great exertion, and with much distress.

This morbid influence of diseased ovaries over the womb and vagina is of most frequent occurrence; and we have every variety and grade of symptoms, varying from vague and obscure uterine ailment to those sudden attacks of violent pain in the hypogastric, iliac, and lumbar regions, attended with frequent desire to pass water, with burning and scalding sensations, and a bearing-down effort equal in intensity to those of labor, and other symptoms that are

peculiar to prolapsus. In other words, it simulates *prolapsus uteri*, or falling of the womb. The importance of fully understanding that the womb and vagina may be the seat of this reflex action will be obvious. Forgetting that these organs may become thus affected, we search for a prolapsion of the womb, but, finding none, are not only surprised, but not a little puzzled to understand the cause of so much pain and tenesmus uteri.

We believe that the great majority of cases of supposed prolapsion are attributable to this reflex action alone. We believe so from the fact, that, in the great majority of those cases pronounced "falling of the womb," the "touch" nor ocular observation discloses any such condition of the organ; but it is found to be high in the pelvis. The sulcus also between the nates is as deep as usual; and the levatores ani muscles, or the floor of the pelvis and vagina, apparently possess their usual strength and tonicity, and occupy their accustomed positions. With this condition and position of the several organs and tissues of the pelvis, prolapsus is impossible.

Prolapsus uteri is a secondary complaint, an effect, if not of a general, of a local relaxation of the muscular tissues: in fact, we believe it to be an effect of a weakened and enervated condition of all the tissues of the body. When prolapsus uteri really exists, there is not only a descent of the womb, but a descent also of the perineum, the broad ligaments, the vagina, the cellular tissues about the vagina; in fact, all the tissues of the pelvis. The womb becomes prolapsed, becomes lowered, sunken, because all the pelvic viscera are in the same condition. It goes down with the rest. It, and the vagina, the bladder, the ovaries, and the broad ligaments, sink, because the floor of the pelvis gives way; because that muscular expansion known as the levator muscles, and which constitutes the floor of the pelvis, becomes weakened, relaxed, and lengthened; and the weakened and relaxed muscles are in no worse condition, prob-

ably, than the muscles of the rest of the economy. This condition is brought on by old age, by the want of proper and healthful exercise, by long-continued diarrhœa or profuse menstruation, by any exhausting and enervating disease, by rheumatic and gouty poisons, by chronic, long-continued inflammation of any of the alimentary or the menstrual organs, by prolonged and tedious labor, miscarriages, &c. So long, however, as the muscular system is not compromised, so long as it retains its natural vigor and tonicity, so long as the levatores ani muscles, the floor of the pelvis, retain their healthful condition, and the sulcus between the nates is deep, and the perineum high up, there will be no prolapsus. It is impossible.

We are told by some (*West* and others) that prolapsus uteri is caused by hypertrophy, or by an engorgement of the neck of the womb; that from the increase of its vascularity, and the increased quantity of blood circulating in the organ, it becomes heavier, and sinks by its own weight, dragging with it the bladder and other pelvic tissues. We do not believe it possible for prolapsus to take place in any such way. We do not believe that any amount of engorgement, or hardly any amount of hypertrophy of an organ weighing only some two ounces, would cause a descent which would become the source of morbid sensations while the levator muscles and vagina are in a healthy condition. In the early months of pregnancy, the womb, by its own weight, and the superincumbent weight of the bowels pressing upon its expanding fundus, becomes depressed; yet there are no symptoms of prolapsus.

What, then, are the true indications of treatment of prolapsus uteri? Not cauterization of the uterine neck, with the internal use of alteratives, &c., to relieve its engorgement, not the wearing of supporters or pessaries, but searching out and removing the primary cause (if it exists) of the weakened and relaxed condition of the muscular tissues, and leaving to or assisting Nature in restoring to their

normal vigor and tonicity the muscular and general system. This done, each organ takes its normal position, and the diseased symptoms vanish. While pessaries are contra-indicated, yet there may be some few cases where their use cannot well be dispensed with. A mechanical stay or support of some kind, in some few cases, may be absolutely necessary, at first, to relieve the irritation that the mal-position causes; which irritation would counteract all effort towards strengthening the muscular parts.

Another symptom not unfrequently present is more or less of swelling at the lower part of the bowels, between the groin and the uterus on either side; a prominent, well-defined swelling in some, painful under pressure, and the surrounding integuments more or less tense; while in others a slight puffiness only will be observed, but which, under pressure of the fingers, will be found sensitive or painful. An examination "per vaginam" will ordinarily furnish but little evidence of any internal tumefaction in the direction of the ovary, unless the swelling of that organ be very considerable: but an examination "per rectum" will generally very readily discover the swollen ovary; at any rate, if the swelling be at all prominent. Sometimes, when the tumefaction or swelling of the ovary is very considerable, it will be found sunken low down in the pelvis, and felt resting upon the rectum, and can be pushed from one side to the other by the finger.

With or without pain or swelling, there is usually more or less of tenderness, soreness upon pressure, in one or the other groin, which is increased when the integuments over the inflamed organ are put upon the stretch, as by the act of extending the limb upon the pelvis, or in assuming the erect position. From this stretching of the integuments, and pressure by the subjacent parts upon the inflamed organ, many patients are unable either to walk or stand. Some cannot remain in the erect position except by placing the foot upon a stool, and by so doing flex the limb

of the affected side, and relieve the pressure caused by the drawing of the integuments. From this pressure upon the inflamed organ by the integuments, the patient stoops, or inclines her shoulders forward, instead of holding them erect, in walking. This is the reason why she cannot "stand up straight," as the invalid often expresses herself; the reason why she moves along with so much cautiousness of step, especially if there be inequalities in the surface over which she is walking; why she seems to move a side at a time, something after the manner and style of an elephant; and why the ascending of hills or stairs, or the lifting of weights, or any exertion with the arms (as the raising them to the head in adjusting the hair), or any movement or motion that calls into play the abdominal muscles, causes her pain: and for the same reason is a deep inspiration, coughing, or vomiting, most distressing.

Sometimes there is described an extreme superficial sensitiveness or soreness of the skin covering the lower portion of the bowels, and, not unfrequently, the skin covering the sacral bone,—so sensitive, oftentimes, that the least touch occasions the severest pain.

Another symptom not unfrequently experienced is much irritability of the bladder. The patient is unable to retain more than a small quantity of water at a time; and the frequent necessity of micturating, with the attending burning, scalding pain, is the source not only of much annoyance, but oftentimes of positive distress. These symptoms not unfrequently give rise to the notion that the bladder is really the seat of the disease, especially when the disposition to micturate frequently continues for some little time.

The passage of the fæces is also sometimes attended with much pain and tenesmus, more especially if solid matter be present and the lower bowel much distended. Its passage along the bowel, pressing upon the inflamed ovary, causes great sensations of distress and prostration and if, withal, there be costiveness, that demands an expulsive effort on

the part of the abdominal muscles, the most intense and almost unbearable pain is often experien ed; and so great is the suffering from the pain of defecatio n, that the patient oftentimes retains the hardened mass until dislodged by the surgeon.

Sexual intercourse is tolerated only under great suffering, and is not unfrequently the source of much moral and mental as well as physical distress. The pain experienced is sometimes at the entrance of the vaginal canal, but more generally far back.

The vagina is not unfrequently the seat of much vascular excitement, turgescence, and sensitiveness, and often the seat of a most tormenting and distressing itching. The urethra is frequently very sensitive, and more or less swollen, more especially at its vaginal extremity. This point is often the seat of much vascular fulness and extreme sensitiveness; and so great is the tumefaction sometimes, that authors have regarded it as an outgrowth. In this condition of the urethra, there is ordinarily a frequent desire to micturate, attended with burning, scalding sensations, which sometimes give rise to notions that the kidneys or bladder are diseased.

Nymphomania is said by some to be a symptom of this disease: but this, in our opinion, is very wide of the truth; for there is not only no development of sexual excitement, but feelings ordinarily of a directly opposite character.

So intimately connected are the ovaries with the other organs and tissues of the sexual system, that it would be surprising if a morbid process should long continue in one or both ovaries, without inducing, by transmission of a morbid stimulus, more or less of diseased action in the other organs of the pelvis. The same liability of neighboring organs and tissues to become diseased exists in the sexual system as in other parts of the economy.

We have seen that a diseased ovary may transmit a morbid stimulus to the rectum and bladder, and induce a

sensitiveness and irritability distressing and painful in the extreme. In like manner, morbid stimulus transmitted from a diseased ovary to the womb induces irritability of its nervous, and congestion and engorgement of its vascular tissues, an increase of its natural secretions (leucorrhœa), and, not unfrequently, effusion of blood (menorrhagia, accidental hemorrhage). If the womb be not thus relieved of its plethora by an increase of its natural secretions, or by an effusion of blood, it becomes over-nourished from its inordinate supply of blood; and the stimulated activity of its organic or nutritive nerve-system induces a state of over-development, enlargement, or *hypertrophy* as it is termed; by which is meant no alteration in texture or tissue, but a *growing* of the organ: it becomes more than ordinarily developed, and of larger size, and occupies more space in the pelvis. The enlargement, however, is very inconsiderable, and seldom continues after the cause has been removed.

Instead of over-development, or hypertrophy, *congestion* and *engorgement* may be the result. The fundus of the organ becomes somewhat enlarged, the neck considerably swollen and sensitive, and the lips more open and prominent, and of a deeper red color than usual; or, as is perhaps more frequently observed, the lips become less prominent, in fact become lost in the swelling of the neck, and, instead of an elliptical, a perfectly round and shining red os uteri presents itself. These conditions, however, are extremely variable; sometimes scarcely to be discerned, and at other times readily recognized by the "touch" and ocular examination.

An increase of the natural secretions of the womb, known as "the whites," or *leucorrhœa*, by which the congested vessels relieve themselves, is of most frequent occurrence. The character of the discharge varies according to the severity of the ovarian disease and the congestive or inflammatory character of the uterine or vaginal tissues involved.

Effusion of blood, known as *menorrhagia*, or an inordinate menstrual evacuation, is another and not uncommon method of relief to the congested and engorged vessels of the womb, induced by morbid stimulus transmitted by a diseased ovary.

When the plethoric or congested state of the blood-vessels does not become relieved as spoken of above, and is of long persistence, the substance of the womb, or its lining membrane, or both, are extremely liable to pass into an *inflammatory* state. If the morbid stimulus be transmitted just previous to or during the menstrual period, it is easy to perceive how a spasmodic constriction of the neck, or a congested or inflamed lining membrane, would, from the heightened action and tumefaction of the tissue, preclude the possibility of any secretion taking place: hence *retention* or *suppression*, which condition may last for a longer or shorter time, until at last the constriction is forced, or the vessels give way, and the congested and engorged tissue relieves itself by an inordinate discharge, or, in other words, by a *profuse menstrual flow*. Retention and suppression may also be induced by the ovaries becoming so changed in their structure, through inflammation, that they lose their influence over the womb and the sexual system, and transmit no menstrual stimulus or impulse. Retention and suppression may also occur from the congested and inflamed ovaries drawing to themselves the blood which they usually cause to be impelled from the womb.

When a spasmodic constriction of the neck is present, or a tumefaction of the substance or lining membrane of the womb, with closure of its mouth, it is readily perceived how the retained menstrual fluid in the already irritated cavity of the womb may stimulate its muscular tissue to spasmodic contractions for the purpose of expelling its irritating contents, accompanied by a sense of fulness in the pelvic region, pain in the back and loins, and pains of an expulsive character, or bearing-down pains as they are

termed; producing, in other words, all the symptoms of *painful menstruation.*

From the heightened action of the morbid process going on in the inner surface of the womb and of its neck, a diphtheric exudation from its mucous surface may take place, inducing suppression or painful excretion of the catamenia; which excretion will be found mingled with pseudo-decidual membranes.

Painful flow may also be induced, not through any inflammation of the womb or its neck, or any constriction or false membranes, but as a simple result of the process of morbid ovulation. The menstrual organs pass from a physiological to a pathological condition; they become swollen, congested, and inflamed, and perhaps involve not only their peritoneal covering, but the fimbriated extremities of the Fallopian tubes and surrounding tissues. This form of dysmenorrhœa is more frequent than either of the others, commencing with short, darting, lancinating pains in the groins, and from that point radiating down the thighs, upwards to the back, and, in fact, in every direction. These pains, with some, are but temporary; while, with others, nearly the whole of the menstrual period is one of intense suffering, and may be and generally is accompanied with more or less of symptoms of *hysteria*, especially if the patient be of a nervous, irritable temperament.

Females exhibiting symptoms that we have been describing are ordinarily *sterile:* if, however, pregnancy does occur, *miscarriage* is imminent.

That the above uterine disturbances — hypertrophy, congestion and inflammation, leucorrhœa, and the disturbed menstrual function — have their rise and origin in the ovaries, is manifest from the fact that they do not appear before puberty, and that they cease with menstrual life; nor do they appear when the ovaries are wanting or undeveloped.

General Symptoms. — Under the head of *Local Symptoms*, we have given those that arise directly from the inflamed ovaries and from the neighboring organs and tissues of the pelvis. Under the head of *General Symptoms* belong those that are observed in other parts of the body.

It will be remembered that *the effect of a local affection frequently becomes general.* When an organ becomes diseased, it transmits a morbid stimulus to and involves circumjacent organs and tissues. It may also transmit a morbid stimulus to and involve *remote* organs and tissues.

When organs remote become involved, the morbid stimulus is first transmitted to the spinal cord, and from the spinal cord the irritation is reflected to the organ which becomes disturbed. In disease of the menstrual organs, both sides of the body are not ordinarily equally affected; but the side which corresponds with the diseased ovary is the one usually disturbed. We have noticed this repeatedly when the knee-joint has become reflectively involved. The left ovary, like the left testicle, is, from some undefined reason, the one usually diseased; and its morbid stimulus is transmitted to organs of the same side of the body: hence the reason that the left parotid gland, the left tonsil, the left breast, the left lung, the left knee, &c., are ordinarily the organs involved, instead of the right.

The first of the general symptoms that we shall notice is pain in the loins. But very few patients laboring under this disease escape pain in this locality. It is almost always present. It is an almost never-failing symptom of the approach of the catamenial period. Pains occur also in the dorsal and cervical regions, but not so frequently as in the loins, nor so frequently in the cervical as in the dorsal region. When occurring in the dorsal and cervical region, the pain is usually more acute, and combined with more considerable sensitiveness of the skin. In the lumbar region, the pain is ordinarily of a dull, heavy character, combined sometimes with feelings of numbness and weakness in the lower extremities.

Accompanying these pains, there is generally a feeling of lassitude or languor, more especially when the pain is in the lumbar region. Sometimes, instead of pain, a weakness only is experienced in the small of the back, accompanied with feelings of general lassitude and languor, — an indescribable feeling of inertness, feebleness, and wretchedness, which no effort on the part of the patient is able to shake off.

Combined with these pains, there is ordinarily more or less superficial sensitiveness over the spine, more especially in the dorsal and cervical regions; and not unfrequently a sore and tender feeling under pressure of the fingers: which tenderness, when discovered by *some* physicians, is at once pronounced "spinal disease," "spinal irritation," and the cause of the whole array of morbid symptoms which afflict the patient; and they believe they have the very best of reasons for putting the patient through a course of treatment which comprises moxas, setons, blisters, plasters, &c., to the spine, for the purpose of relieving a supposed irritated and inflamed state of the spinal cord; but with how much success in relieving morbid symptoms, I leave to the scarred-back patients to answer.

Some years ago, "spinal irritation" was not only an exceedingly prevalent, but an exceedingly popular idea; and many works on "The Spine," "Spinal Irritation," "Affections of the Spinal Cord," &c., were issued, each detailing remarkable discoveries, wonderful cures, &c.

The idea of "spinal irritation" first suggested itself to some leading genius in the profession; and no sooner did he announce it than away went the fraternity pell-mell on the "spinal-irritation" idea, like sheep following the bell-wether. "Spinal disease" and "spinal irritation" were the Alpha and Omega of all their thoughts. The backbone monopolized their entire attention; and their every patient (who had a backbone) was put through an examination, *secundum artem*, with the ice, hot spoon, &c.; applications to the spinous processes of the vertebræ; which, with sundry

punches with the fingers, knuckles, brass keys, &c., were quite enough generally to make the patient *flinch*, and the doctor to believe that he had, at last, discovered the great source and primary seat of his patient's infirmities. How absurd though, and supremely ridiculous, the idea that the spinal cord is to be at all affected by any such manipulations! If the spinal cord could be thus easily reached, the most trivial every-day accidents would be sufficient for its total destruction. One might just as well think of hushing up a noisy congress-man by punching the dome of the capitol as to think of affecting the spinal cord in the slightest degree by pressing upon the long, overlapping, strong, and peculiarly-arranged spinous processes of the vertebræ, — an arrangement "got up" expressly for protecting the spinal cord from injury of pressure and accidents. Would one of these spine-punching doctors think of pressing on the skull to find out whether the brain was "tender" and "irritated"? Not a bit of it; yet the spinal cord is more protected with thicker layers of bone than the brain is.

But pressure on the head does sometimes cause pain; and so also does pressure on the breast-bone, ribs, and other bony prominences of the body. The pain, though, is *superficial;* and so is the pain produced by pressure on the spinous processes of the backbone; and the ache that is so often experienced in the small of the back and other localities along the spine is an ache of the *muscles*, and not of the spinal cord, — the same kind of an ache precisely that is often present in disease of the testes, and so also in disease of the kidneys, bladder, liver, and stomach, or in persons weak and debilitated after being long on the feet, or in persons sick with fever.

The same morbid stimulus emanating from the ovaries which affects other parts of the body is extended to and involves the muscles and other tissues in close proximity with the spine.

That "spinal disease," "spinal irritation," *may* exist

simultaneously with disease of the ovaries and other organs, is not an impossibility, by any means; but it is an extremely rare occurrence. Its existence, though, is not to be ascertained by any punching of the spine, or by cold or hot applications; for the spinal cord is too well protected by thick layers of bone, strong ligaments, and thick muscles, for any such manipulations to affect it in the slightest degree. Extensive disease of the cord and of the vertebræ may exist without the slightest pain being elicited by pressure, and without the slightest twinge or ache; and Prof. *Velpeau* has collected twenty-five cases of *disorganization of the medulla oblongata* (upper end of spinal cord) which produced no disturbance of nervous functions whatever.

Pains are experienced not only in the back and loins, but radiate from the diseased menstrual organs in every direction, — *downward* to the thighs, knees, ankles, and feet (and which have not unfrequently been regarded as "neuralgic" or "rheumatic," and treated as such), and *upward* to the iliac and hypogastric regions; to the right side and shoulder, giving rise to notions of "liver-disease;" to the stomach, giving notions of "dyspepsia;" to the lungs, causing fears of "consumption:" in fact, pains radiating from diseased ovaria may be felt, and often are, in almost every organ and tissue of the body. The knee-joint especially is not an unfrequent seat of this reflex influence; and many cases have come under our observation whose previous treatment with local applications of iodine, &c., had been instituted under the idea that the joint was the seat of serious disease. All joints, large and small, are liable to become affected; but the hip and knee joints are the most frequent seats of morbid sensibility, and sometimes of severe pain, and are too often suspected of local disease of a serious character. Sir *Benjamin Brodie* once said, "I do not hesitate to declare, that, among the higher classes of society, at least four-fifths of the female patients who are commonly supposed to labor under disease of the joints,

labor under hysteria, and nothing else." Hysteria is, as we shall see by and by, a symptom, an effect of a pathological condition of the sexual system, and ordinarily, as we believe, of the ovaries: in fact, we are now describing hysterical disturbances.

Numbness and pricking sensations sometimes take the place of pain in the lower extremities. Local and general paralysis of the lower as well as of the upper extremities, and sometimes of an entire side of the body, is seen. There are also frequently experienced cramps, stiffness, and rigidity of the muscles of both upper and lower extremities. The extensor muscles, though, are less frequently involved than the flexors.

Notwithstanding the pains, weakness, cramps, and other disturbances, the patient may be able to attend to her usual daily avocations from their moderation, or by the exercise of the will: this is true of some; while, with others, to sit, stand, or walk is at once impossible, and the recumbent is the only endurable position.

A very frequent symptom of this disease is that which arises from irritation of the brain and disturbance of the cerebral function. Pains in the small of the back, in the dorsal and cervical region, may exist without any disturbance of the brain, or they may be co-existent; but, ordinarily, the head, and the lumbar region and sacrum, are seats of much disturbance, while the cervical and dorsal regions escape entirely.

The scalp is not unfrequently the seat of acute, darting, and throbbing pains, and sometimes of burning sensations, with much superficial sensitiveness. There are experienced, also, sensations as if the head was enlarged and heavy, or heavier on one side than the other, and requiring much effort on the part of the patient to keep it properly poised. Sometimes there is a feeling that the brain is swollen, and compressed within its bony cavity; and sensations of motion in the bones of the head, as if the side-bones alternately opened and closed.

Headache is another common symptom. It may be fixed to one spot, as in the front of the head, in the forehead, over the eye, or back under the base of the brain: but ordinarily, when the headache is severe, it is referred to the top of the head, occupying sometimes considerable space; but, generally, the end of the finger can cover the aching point. When in this particular locality, the pain is usually acute and most distressing, and attended with much tenderness of the scalp, and followed, not unfrequently, by convulsions and spasms of the entire muscular system. This pain is seldom or never experienced before puberty or after "change of life."

Pains located in the temple, and radiating to every portion of the head, combined with much augmentation of the senses, are not uncommon. The slightest noise is represented as being almost deafening in its character, which, with the ringing, singing, or a "hammering sound" in the ears, with flashes of light in the eyes, add much to the suffering. Instead of flashes and intolerance of light and sound, the opposite condition of obscure vision and more or less deafness is sometimes experienced. There may be also pain of the most distressing character in the dental nerves, acute pain and spasm in the facial muscles, which has often been regarded as "tic douloureux;" also twitching of the eyelids and eyebrows.

The mind is not unfrequently the seat of much disturbance; and the morbid suffering to which some patients are a prey is most distressing. They suffer, they dread, they fear, they cannot analyze their feelings, or, if the analysis is partially effected in thought, they cannot express the result of the process from loss of words. Their anticipations of danger to themselves or their friends is a source of much mental disquietude; or, losing their interest in their friends around them, they become unmindful of their comfort and happiness. With some, the mind seems vacant, and the attention hard to arrest or rouse from its lethargic

state; no notice is taken of what is going on around them; nothing attracts their attention or disturbs their equanimity: while with others the merest trifles distract the senses, arouse anger, and ebullitions of displeasure are dealt out to all around.

Unfortunately, that strange caprice, that inequality of taste and behavior, so often seen in woman, is commonly attributed to *temper*. We love to find excuses for the sex; and their short-comings in the way of equanimity, we honestly believe, are referable, in the great majority of cases, not to *temper*, but to influences entirely beyond their control, — to, in fact, actual disease. We are told that they do not regulate their actions by reason and principle, and that they suffer themselves to be guided by every slight and momentary impulse of inclination, which makes them appear so variable and inconstant, that nobody can guess by their behavior to-day what may be expected from them to-morrow; that it is in vain for others to attempt to please them; that they cannot, in fact, please themselves; and that this wretched state proceeds from excessive and ill-judged indulgence, flattery, &c. Never mind, my good woman: justice will be done you all in good time; and man and the world will learn to accord to you the meed of praise for so much propriety of behavior when so little ought to have been expected. Man will bear with your troublesome humors, and accord to you his sympathy. He will hide your infirmities by his silence, and redouble his diligence to assist, oblige, and demonstrate true affection, and exert himself in striving to restore that health, which, but for him, perhaps, you never would have parted with.

The influence of the ovaries over the mind is displayed in woman's artfulness and dissimulation. The same is observable among the brute creation in the skill and cunning displayed in the choice of a secret locality where they may deposit their eggs or young; and it is said that the lioness, to cover her retreat and elude pursuit, will hide her

footprints by retracing the ground, or brushing them out with her tail.

The perversion of some of these peculiarities of the female are often witnessed in an extraordinary degree, and is a prominent symptom of diseased menstrual organs. "An hysterical young female has really a marvellously small appetite, and, to increase the wonder, refuses all food whatever by day, and pays secret visits to the pantry by night. She has retention or partial suppression of urine; and so she crams the vagina with stones, and drops them into the chamber-pot, to make people believe she has stone in the bladder. In all other respects, she conducts herself with the most unaffected modesty and propriety." Their artfulness, dissimulation, and the length of time they are able to carry on their impositions and deceptions without detection, is oftentimes truly marvellous, but, when discovered, furnishes most valuable testimony, and points to the ovaries as a seat of disease, and the cause of those acts for which woman is sometimes pitilessly reproached, but which are by her as unconquerable as those *strange longings* which are so often observable when the functions of the ovaries have become suspended through pregnancy.

Mental hallucinations and deceptive perceptions are sometimes prominent symptoms of this disease. The sensation of an internal growing tumor, or the crawling or moving about of some reptile, are so vivid, that the patient can hardly get her consent to believe that they are not realities.

Another proof of the mysterious link which binds the organs of generation to the noblest faculties of our nature is furnished by Dr. *J. Conolly*, who thus expresses himself in the Croonian Lectures: "Bodily disease gives evident origin to mental delusions in many instances. Women of various ages, either at the monthly periods or on the cessation of the catamenia, and when laboring under irritation or disease of the uterus, are liable to imagine that an actual fire exists within them, that Satan has dominion over them, or

that a deluge of flames is descending upon them. In one case, an elderly patient had for some time attributed a fixed pain in the back to her having been seized by the gripe of the Devil. For reasons which may be readily imagined, an irritable uterus often leads to melancholy, to self-accusation, to religious despair, and to suicidal propensity."

The pharynx sometimes becomes involved in this disease; and the patient, unable to swallow either solid or fluid matter for days, has excited suspicions of hydrophobia. The opposite condition, of remarkable avidity for swallowing, has been observed; and Dr. *Graves* of Dublin cites an example in which any attempt to interrupt the process of swallowing was followed by hysterical convulsions.

The different glands of the mouth sometimes become involved, and pour out large quantities of saliva, as though under the influence of mercury. From the intimate relation that exists between the ovaries and the salivary glands, increased secretion of the saliva is no uncommon symptom in many of the diseases peculiar to women; but the discharge is ordinarily so little increased, that it does not arrest the attention, and is overlooked. We have quite recently seen a case where the salivary glands were involved, and from one to three pints of saliva were discharged daily. The intimate alliance between the salivary glands and the testes, ovaries, and breasts, is seen in the disease called *mumps*, where the parotid gland becomes swollen; and after a longer or shorter time the testes of the male, and the ovaria and breasts of the female, become also involved: they become tender, and sometimes swollen and painful. We have also a familiar example of the influence of the ovaries over the salivary glands in the increase of saliva, "spitting cotton" as it is sometimes termed, which follows the ovarian excitement when their functions become suspended through pregnancy.

Sometimes the salivary glands, instead of being stimulated just to the secreting-point, become over-stimulated, and

a congestion and tumefaction of their tissues occur, which closes the secreting orifices, and the mouth and tongue become dry and parched, and the thirst excessive. When this occurs, the tonsils usually become involved and swollen.

Other frequent symptoms of this disease are to be found in the affected larnyx, and in the disturbed vocal apparatus and respiratory organs. The larnyx, as we have already seen, is intimately connected with the ovaries and testes. The influence of the testes over the larnyx is well illustrated in the loud neigh of the stallion and bellow of the bull, as compared with the analogous sounds in the horse and the ox. Upon the influence of the ovaries and testes is due that change which occurs in the voice at puberty. When the ovaries are absent, the voice is husky, rough; and all attempts at vocal culture will prove abortive. When the ovaries are present, and fully developed, the voice is sweet and melodious, and vocalization is susceptible of great cultivation. The voice attains its purity at puberty, when the ovaries are fully developed, but retains it only during menstrual life. When the ovaries begin to shrink, the voice begins to fail. When the ovaries become diseased, the voice loses its purity of intonation, and becomes husky, hoarse, and rough. This is observable in females sold to vice; for nearly all suffer from diseased menstrual organs, and have generally voices harsh and disagreeable. We have seen this reflex influence of the ovaria so act on the vocal organs of young women as to entirely disqualify them for singing. To this cause alone has the failure of the voice been attributable in thousands of young females, and it has been regarded as some affection of the vocal organs or lungs; and, from mistaken notions as regards the true seat of the disease, the voice has been allowed to go on from bad to worse, until entirely destroyed.

Loss of voice for days, and sometimes for weeks, the patient speaking only in whispers, may also arise from the *chordæ vocales* becoming involved.

Another very frequent symptom of this disease is a dry, hacking cough, scarce noticed perhaps by the patient herself, but by her friends regarded as premonitory of consumption, and is the cause of much needless alarm; and not unfrequently the physician, either through ignorance or design, fosters the idea. We have known patients with a simple hacking cough, arising from diseased menstrual organs, treated for months and years with remedies directed to the lungs, with a view to ward off what was supposed to be premonitory symptoms of consumption. As may be supposed, the cough under such treatment continued. There may also arise the hard, sonorous cough; but this is very much less frequent than the simple, dry hack. We observe not unfrequently a cough that comes on paroxysmally, where the patient is for hours and days entirely free from any symptoms of a cough, when suddenly she is overtaken by a paroxysm, which will continue, in spite of anodynes, until she is entirely exhausted, and which oftentimes leaves her as suddenly as was the attack.

Another symptom of this disease, and not an unfrequent one, is "spasmodic asthma," occurring ordinarily just previous to the menstrual period, but may occur at any time during the interval. We have known this reflective disturbance to be treated for months with remedies addressed to the lungs, and the cause not even dreamed of.

We often notice other kinds of oppressed breathing, from the muscles of the respiratory apparatus becoming the seat of the reflex action. These muscles become so affected as seemingly to require exertion on the part of the patient in order to breathe, and which force her every few moments to a deep inspiration or a long-drawn sigh. Sometimes there is experienced an oppression of constriction, as though a cord was bound tightly around the chest. After once induced, these fits of asthma and oppression are liable to recur upon any agitation of the mind.

We have often seen this reflex influence simulate conges-

tion and other diseases of the lungs. We have seen it simulate pneumonia and pleurisy, and treated as though those inflammatory conditions really existed; and the already nervous, weakened, and enervated patient bled within an inch of eternity for the purpose of relieving a supposed existing inflammatory affection. And we cannot forbear here to remark, that ignorance and misconception as regards these cases of simulative pneumonia and pleurisy, and their treatment by blood-letting and other antiphlogistic remedies, have been the cause of the total ruin of the health of thousands and tens of thousands of females in every part of the country: and far better would it have been for their future health and happiness (notwithstanding the seeming urgency of the case, notwithstanding the pain, suffering, and extreme difficulty of breathing) had *such* a medical adviser been a thousand miles away when sent for; for the attack would probably have passed away after a longer or shorter time, and the vital powers would not have been lowered, nor the nervousness, weakness, and enervation enhanced, by any such mischievous, pernicious, and destructive mode of treatment, — a treatment equally mischievous and pernicious, whether a simulative pneumonia or pleurisy, or a true inflammation of the lungs or pleura; for in the latter, even, blood-letting is opposed to sound theory and good practice. It may for the moment relieve symptoms, but has no influence whatever in shortening the duration or diminishing the extent of the inflammatory affection, as has been proved by *Louis*, *Andral*, and *Chomel*; and so, while we gain only relief of symptoms, we sustain an incalculable loss by the weakening of the vital powers at a most critical juncture, which may prove most disastrous.

Blood-letting in pneumonia and pleurisy not only *does no good*, but *inflicts a positive injury*, even in the most robust. If this be so, what must be the effect on a nervous, weakened, and enervated female? It *does no good*, for

the reason, that, after the pneumonia is once established, it will, like typhus-fever, small-pox, &c., run through a definite course, notwithstanding blood-letting or any other medical interference. Prof. *Todd* of London says, "Internal inflammations are cured, *not* by the ingesta administered, nor by the egesta promoted by the drugs of the physician, but *by a natural process* as distinct and definite as that process itself of abnormal nutrition to which we give the name of inflammation." It *inflicts a positive injury*, because blood-letting lessens the vital powers, and lowers the strength of the economy, and, consequently, impedes that process by which the exuded and coagulated blood-plasma is broken up and converted into fluid again, whereby it may be re-absorbed into the blood and eliminated from the system. Prof. *Todd* says, "Inflammation is a deranged nutrition. Like normal nutrition, it involves supply and waste; and, as the latter is considerable, the former will be proportionably so. The tendency in inflammation is to the more or less rapid formation of abnormal products, such as lymph and pus; and the supplies for those formations *must be drawn from the blood* or from the tissues, in both cases *with the effect of more or less exhaustion of the vital force*, with more or less extensive organic disintegration. . . . The more this process of inflammation draws from the blood, *the greater will be the exhaustion of vital force, and the more the whole frame will suffer:* the more it feeds on tissues, the greater will be the difficulty of the reparative process. Is it not, then, important *that adequate supplies should be conveyed to this process*, abnormal though it be? and is it not likely that the most appropriate supplies may be conveyed to it *through the blood*, so that the waste of tissue may be stopped, and the tendency to abnormal formation be checked, at least, from that direction?"

If, then, the process of inflammation draws upon the blood for the means of its own cure, and, by so doing,

exhausts the vital power, and causes the whole frame to suffer, what must be that exhaustion when not only the blood is drawn upon by the disease, but the blood itself drawn out of the system by the lancet? What must be the disastrous effects when the lancet takes away that which the inflammation absolutely requires for its cure, and, by so doing, interrupts or impedes that process by which the lymph and pus are re-absorbed into the blood to be eliminated from the system?

Blood-letting not only does positive injury, *but it is a perfectly useless operation.* To diminish the blood in the inflamed part constitutes one of the chief reasons for blood-letting in pneumonia, pleurisy, or inflammation of the kidneys; but we not only *do not*, but *can not*, by any such operation, diminish the amount of blood in the inflamed part or surrounding tissues. Prof. *Bennett* of Edinburgh University says, "Now, it requires to be shown that draining the body of blood can in the slightest degree influence the congestion in the inflamed part. *There* the vessels are enlarged, the current of blood is arrested, the corpuscles are closely aggregated together, and distend the vascular tube, and are in no way affected by the arterial current, even when increased in its neighborhood. That opening a vein can alter this state of matters is scarcely to be conceived; and, if it could, how would this assist in removing the exudation which has coagulated outside the vessels?

"A consideration of the connection and distribution of the large vessels in the body will still further show the little probability there is of either general or local blood-letting, as usually performed, being capable of influencing the amount of blood in the part actually inflamed. How is it possible, for instance, that venesection in the arm can *directly* diminish the amount of blood sent from the heart by the great pulmonary artery to the lungs, by the carotids and vertebrals to the brain, or by the coronaries to the heart

itself? In inflammation of those organs, blood-letting, to produce any effect, must be large, so as to act on the general system *indirectly* by weakening the heart's action, and producing syncope; and this at a time when, from no nourishment being taken in consequence of fever, great prostration of the vital powers is to be expected. But, whilst the result may certainly be induced by large bleedings, the inflammation in the part is altogether unaffected. The exudation under such circumstances, which requires more blood in order that it may undergo the necessary transformation previous to removal, is then arrested in its development, and, so far from being rapidly removed, remains stationary, or dies, in proportion as the economy is exhausted. If, on the other hand, small and moderate bleedings are practised, how can they operate, even on the principles of those who advocate them? These do not affect the heart, or lower the force of the circulation, even in the neighborhood of the inflamed part: how, then, can they operate on the stagnant blood in the inflamed part itself?

"As to local bleeding (by leeches, cupping, &c.), its supposed effects are inexplicable on the supposition of drawing blood from the inflamed internal parts. A man has pneumonia or inflammation of the kidneys, resulting from changes in the vessels which are supplied *direct from the aorta*, and leeches are applied to the integuments supplied by vessels *derived from the mammary or lumbar arteries.* Any *direct anastomosis* between the vessels on the surface and those in the parts inflamed *is not to be thought of.* How, then, does the loss of this small amount of blood operate in these important cases? It cannot be by any conceivable theory of diminishing either the current *to* or the amount of blood *in* the part. As in the majority of cases, therefore, the loss is not large enough to affect the general circulation, and as anatomy prevents our belief in the idea that it can influence the inflammation directly, it

may well be asked, How can local blood-letting be of any benefit at all?"

We have been led into this digression from witnessing the ignorance so often displayed in the treatment of *simulative pneumonia and pleurisy* by blood-letting, &c.; a treatment that has consigned thousands of women to premature decay and old age, and subjected them to a multiplicity of ills that have attended them to a premature grave. Touching this matter, Prof. *Laycock* of London says, "One bleeding of a highly hysterical female will not be repaired in weeks, and will perhaps induce months of suffering. I would not have ventured upon these remarks, had not my own short experience painfully convinced me how easy it is to do with the lancet that harm which prolonged anxious attention will scarcely repair. I have, therefore, resolved to err on the safe side, and not bleed a female such as I have described, *however much the symptoms may resemble those of inflammation*, unless there be some cause so palpably obvious as to *leave no doubt* whatever of the nature of the case."

To return to the reflex disturbances having their origin in disease of the ovaries, we will remark, that auscultators have pronounced and believed in the existence of "cavities" and other symptoms of consumption, when the infirmity was traceable to reflex influence of the ovaria, and subsequent results went to show that the lungs were entirely healthy.

Hiccough is another and not very uncommon symptom of this disease, and sometimes continues without intermission for many days and nights. *Romberg* relates a case of suppressed menstruation causing distressing hiccough, which continued unabated for a long time, notwithstanding the application of numerous remedies.

Disturbances of the heart's action are no uncommon symptoms of this disease. Fluttering and irregular action of the heart are oftener complained of than palpitation;

but the latter is not an unfrequent and most distressing symptom. Days and months may elapse with no particular disturbance of the heart's action, when suddenly, from some pain or irritation of the body, or agitation of the mind, the most violent palpitation will supervene, with a sense of suffocation, distention, or fulness, as if rupture must ensue, which not unfrequently gives rise to suspicions of "heart-disease." Its want of persistency, though, betrays its reflex origin.

Pains in the intercostal muscles, darting pains, and pains occasioned by breathing, are frequently observable, with superficial pains, and more or less sensitiveness of the skin covering the chest.

Disturbed vascular and nervous conditions of the breasts are among the most prominent symptoms of this disease. We have already seen the close relationship that exists between these glands and the ovaries; that it is through the influence of the ovaries that the breasts exist at all. When the ovaries are absent, or in an undeveloped state, the breasts remain in the same condition. When the ovaries become diseased, the breasts become shrunken and flaccid. This is true ordinarily: sometimes, however, the morbid influence transmitted from diseased ovaria stimulates the organic or nutritive nerve-system of the breasts, and induces in them a state of over-development, enlargement, or hypertrophy; which sometimes acquires immense magnitude and becomes exceedingly burdensome, and can be remedied only by removing that which is the cause of the over-abundant fat deposit. Sometimes the breasts become exceedingly sensitive and irritable; so much so, that the dress occasions much discomfort and pain. Sometimes small irregular lumps are formed in the substance of the gland, giving rise to fear of "tumor" or "cancer." Another very frequent symptom is pain under one or the other breasts, but generally the left one. Sometimes hemor-

rhage from the breasts takes place; and sometimes they have a bruised appearance, accompanied with more or less sensitiveness, and with patches of extravasation of b ood here and there upon them. During the process of n en-struation, the ovarian excitement not unfrequently causes a tingling sensation and a turgescence and erection of the nipple; also a deeper shade in the surrounding areola, and a swelling of its follicles. A diseased ovary may produce precisely the same phenomena, and even a secretion of milk, as sometimes occurs, independent of pregnancy, while menstruating. The same phenomena are also observed when the ovarian functions are suspended through pregnancy.

The reflex influence of the ovaria on the liver, stomach, and bowels, are common symptoms of this disease. Pain in the region of the liver, with or without pain in the right shoulder, is no uncommon symptom; and when accompanied with more or less of costiveness, and disturbance of the digestive functions, how often has it been regarded as "liver-disease"! When the stomach has become the seat of the disturbance, we not unfrequently, often in fact, see every variety of nervous dyspepsia. No matter how small the quantity of food taken, fulness and oppression after eating are present. In some, there is simply a sense of oppression; while in others, loss of appetite, nausea, and vomiting are present, which greatly aggravate the disease and suffering. In some, there is no oppression after eating, except certain articles of food be taken. Some can take into the stomach with impunity the most indigestible articles, while some particular and very simple article of diet will induce paroxysms of the greatest suffering and distress. In some patients laboring under this disease, *meat*, even in the minutest quantities, no matter how covered up or disguised, is immediately rejected.

Another exceedingly common, and it may be said never-failing effect of inflammation of the menstrual organs, and a very important one too, is deterioration of the blood. This

condition of the circulating fluid, impoverished of its red globules, &c., has often been noted in hysterical subjects, and by not a few regarded as the cause of hysterical manifestations, instead of an effect of the disease. The blood is dependent for its constitution on the results of the primary digestion in the alimentary canal; and its diseases are oftener than otherwise associated with the quality or composition of the digestive fluid. Through the influence of diseased ovaries over the digestive functions, the food is improperly prepared for its reception into the blood its deterioration is the consequence, and is followed by a multiplicity of those ills attendant on blood-disease.

Nausea and vomiting are other and not unfrequent symptoms of inflammation of the ovaria. They are common symptoms of pregnancy when the ovarian functions become suspended; and they are common symptoms for a while after the close of menstrual life, while the ovaries are yet in a congested and irritable condition. When suppression of the menses occurs from other causes than pregnancy or "change of life" acting on the ovaries, nausea and vomiting are common. Cases are on record where the excitement of the ovaries consequent upon sexual congress always produced vomiting. Other cases are noted where vomiting always occurred at each menstrual period. The same morbid stimulus which affects the pharynx, larnyx, lungs, liver, and stomach, is extended to the organs and muscles concerned in the act of vomiting.

Another exceedingly common symptom of this disease is accumulation of gas in the intestines, the noise of which in the stomach and bowels is audible even at distances, and mortifying to the patient. This, and swelling of the waist and bowels, are almost never-failing symptoms; while uneasy distention and oppression of the stomach and bowels, and attacks of colic, may be quite as frequent. Tympanitic distention of the abdomen from gas has sometimes, through neglect of the simple expedient of percussion, been mis-

taken for dropsy. Constipation of the bowels from a paralysis of their muscular fibres, and the formation of scybalous matter, as well also as diarrhœa, are other common symptoms.

Superficial tenderness or sensitiveness of the skin covering the abdomen is sometimes met with, and has not unfrequently been regarded as a case of peritoneal inflammation, or sub-acute inflammation of the bowels, and treated as such. Sometimes a hard and knotted surface of the abdomen, from spasm of the abdominal muscles, is observed.

The kidneys, in this disease, are always more or less affected; their secretion being either increased or diminished, more frequently the latter. During the excitement of the ovaries at the menstrual period, the secretion is nearly always diminished. Large secretions of colorless urine are of no uncommon occurrence, and total suppression for days is occasionally met with; and cases are on record where suppression has been followed with vomiting of urinous fluid.

Of the influence of diseased ovaries over the bladder, we have already spoken under local symptoms. We will here add, that albuminous and purulent discharges from the bladder, and retention of urine from diminished muscular power of the bladder or a spasmodic constriction of its neck, are also frequently noticed. Sometimes the menstrual stimulus is communicated to the kidneys instead of the uterus, and we have a monthly discharge of bloody urine. The bowels may become affected in the same way, and a periodical diarrhœa take the place of the catamenia.

Sanguineous discharges from different parts of the body are symptomatic of this disease. Discharges from the eyes, from the ears, the breasts, the roots of the nails of the fingers and toes, and from the navel, have been noticed. We also have accounts of perspiration of blood from the face, arms, and limbs.

Finally, what more common symptom is there of diseased menstrual organs than the loss of luxuriance of form, and those fine and delicate contours which are constant objects of admiration? The rose vanishes from the cheek, the lily is no longer the vain rival of the forehead or the neck, the eyes become sunken and dull, and the throat no longer emulates the voice of the nightingale. The entire figure becomes thin, spare, attenuated, and bony.

The "testes muliebrum," or the menstrual organs, have, as has already been remarked, the same influence over the development of woman as the testes have over that of man; and their absence, or destruction by disease, is followed by the arrest of that characteristic luxuriance of form which is so much admired in woman, and by their assuming a dryer texture, the harder outline and the angular harshness of men. The skin becomes dry and coarse, and destitute of that delicacy and softness which are peculiar to the female sex. Mustaches and beard not unfrequently make their appearance; the rich clustering locks that adorn the head, and the hair on the *mons veneris*, fall out, and become sensibly diminished. The teeth become defective; and the nails, irregular of growth, lose their transparency, become hard and brittle. This condition of system is not unfrequently observable in those aged females who have passed the "critical period," especially those who have been deprived of sexual congress.

The hair and the nails have an intimate connection with the ovaria and testes. We have a familiar example of the influence of the testes over these appendages of the skin in the horns of the stag, which grow when he becomes fit for reproduction. If the testes be removed previous to this period, he remains forever deprived of horns. If the testes are removed during the process of their growth, it at once becomes interrupted, and the horns become dry and brittle. So with the nails when the ovaries and testes become destroyed: although their growth is not wholly arrested, it

is so partially; and they become less regular, more hard, less transparent, and brittle.

When the ovaries become compromised through disease, we witness somewhat similar results. The subtegumentary tissue, skin, and its appendages, become similarly affected. Sometimes, however, instead of miserable leanness, a directly opposite condition is observable. The diseased ovaria stimulate the organic or nutritive nerve-system, inducing a deposit of fat which lends roundness to the limbs, and a delicate finish and plumpness to the entire form; and no matter how much may be the pain and suffering experienced by the patient, no matter how much may be her exhaustion, weakness, and enervation, the roundness of contour continues, much to the surprise of all. In any other diseased condition than this, luxuriance of form, and the fine and delicate contours, would quickly vanish: in this we have a valuable auxiliary towards forming a correct diagnosis. From this influence over the nutritive nerve-system, an excessive deposit of adipose matter sometimes takes place; and it is well known that exceedingly fat women are ordinarily sterile. They are excessively fat through disease of the ovaria, which is the cause of the sterility.

In disease of the ovaria, the skin loses its lifelike freshness, transparency, its delicate tints and whiteness, and becomes not unfrequently of a dark leaden hue. We have a familiar example of the influence of the ovaries on the skin in the dark leaden hue under the eyes while the ovaries are engorged and swollen during the process of ovulation, also after the ovarian excitement nduced by sexual congress, and so also in the dark skin which is frequently observed when the functions of the ovaries are suspended through pregnancy. A case is on record of a young girl of sixteen in whom the ovarian function became suspended, and her face turned as black as a negro's.

The skin loses its smoothness and softness, becomes

rough, and is frequently the seat of most obstinate eruptions, which continue in spite of all remedies addressed to it, and for reasons obvious, — the cause still operates. Disease of the menstrual organs sometimes manifests itself through the sebaceous follicles of the skin in a succession of boils which make their appearance. In young girls, just previous to the first menstrual effort, while the ovaries are becoming aroused to the performance of their function, sores in the corners of the mouth, in the nose and ears, and successive boils, are frequent and common.

The teeth, also, sometimes become involved in this disease, and exhibit symptoms of rapid decay. Toothache is not an uncommon symptom. It is said by Dr. *Elliotson*, that the removal of the boar's tusks destroys his sexual propensities. In this we see the intimate relation between the testes and the teeth, and, in the toothache of pregnancy, the relation between the ovaries and the teeth.

Through disease of the ovaria, offensive exhalations, of varying intensity, are not unfrequently transferred from the genital organs to the skin, generally to the follicles of the arm-pits, and sometimes to the lungs. In some, the exhalations are not very unpleasant, while in others they are of the most disgusting and offensive character. We have had to deal with many cases of the latter, and have generally found them most obstinate cases.

The perspiratory glands sometimes become involved, and we have profuse and debilitating discharges of perspiration, and a corresponding diminution of the secretion from the kidneys. These cases have not unfrequently been taken for the "night-sweats" of consumption, and treated accordingly, more especially if the lungs happen also to be a seat of the reflex action.

Over the beauty of woman the ovaries have no little influence. It is their influence which makes woman beautiful. It is through their influence, when diseased, that her beauty, bloom, and vigor are destroyed.

"Beauty proudly possessed itself of the materialism of woman, and from that earthly throne performs the great mystery of earthly exaltation. Hence comes that panorama of beings and things which renders time as a page of eternal love.

"Living beauty, the highest wrought of all life and being, contains irresistible powers of attraction and charm.

"When we consider the vivid and varying sensibility of woman, we cannot be surprised that she is enabled to secure the love of intelligence, captivating the imagination, whilst she secures affection and respect.

"The beauty of woman smiles over all time; and never was there a pleasant place which was not made more tolerable when woman's smile arrived: indeed, without this presence, Eden itself would have been a sad and melancholy prison for man. It is true, she journeyed far from Paradise; but it was woman's beauty that lit up the camp of the patriarch, and glittered in the wild path of his wanderings. Yes, that smile of Sarah's, which she could not hide, rendered her a subject of affectionate solicitude when she approached the court of King Abimelech. It was the lovely Zipporah's beauty which saved the life of one of the wisest lawgivers. When King Hamor saw the beautiful Dinah, he said, 'Ask me, and I will give all; but give me the damsel as my wife.' Within the smile and at the shrine of the beauty of the mighty Thermatis, the immense nation of Egypt bowed down. The august bearing and loveliness of Cleopatra, Queen of Egypt, Empress of Marc Antony's heart and bed, and mistress of Julius Cæsar, will be a proverb to all time, — unparalleled in the luxury of her state, splendidly endowed of mind, resistless in the charms of her person, daring, subtle, conqueror of Octavius Cæsar by his very suicide, sagacious in all things save in the want of control over her voluptuous passions, of a pride perfectly matchless in its splendor, of a beauty imposing, and bodily graces commanding. Who will ever forget the beauty of

Miriam, her dancers and singers? the peerless Mariamne, whose loveliness subdued the tyrant Herod? When this wonderful woman was crowned, through arch and aisle came the swelling chorus of many hundred voices, in which the soft, full tones of woman were most thrilling, whilst harp, lute, and timbrel joined in the charming concert. The ceiling of azure and gold, reflecting the dazzling sunlight, looked like a canopy of glory; and while Herod and his men of war stood in their panoply of steel, the fairest of the fair of Israel's children, with their thousand charms (scarcely shaded by the dim veil) were moving like dazzling stars. Yet all these beings of beauty, and scenes of grandeur, owed their exquisiteness to the presence of the smile of the fascinating Queen Mariamne. When she smiled, the whole court seemed in revery and impassioned delight.

"The companion of Nimrod was the beautiful Semiramis, the queen of a city containing a million inhabitants, on the walls of which city three chariots could be driven abreast. The hanging gardens of Babylon were amongst the many evidences of her taste and power. She caused two palaces to be built on the banks of the great Euphrates: one of these palaces extended eight miles, and was communicated with from the palace on the other side of the river by a tunnel under its natural bed.

"Next appears the indomitable spirit of Nitocres; after whom comes the illustrious wife of Nebuchadnezzar, of whom the prophet Daniel speaks. All gone to appear no more. The golden city forever gone. Let us never forget the faithful Thisbe, who died in fond love for one to whom she had pledged her heart. The beautiful Esther allayed the anger of Ahasuerus, and saved the life of Mordecai. Her transcendent beauty and lovely smile enchained this mighty monarch. The warlike Cyrus was conquered by the beautiful Tomyris. The lovely Atossa, daughter of Cyrus, and Queen of Darius, won concessions from the greatest conqueror, which preserved herself and her family.

"With what a brilliant host of wonderful beings are the pages of history painted! Yes, the fairest of the fair (in triumph of beauty) take important and distinguished parts in the great drama of the world."

The very approving and innocent complacency we all feel in the contemplation of beauty, whether it be that of a landscape or a flower, is a sufficient witness that the pleasure which pervades our heart at the sight of human charms was planted there by the divine Framer of all things as a principle of delight and social attraction.

Let religion and morality be the foundation of the female character. She may then seek to beautify the structure, without any danger to its safety. When a girl is instructed in the great purposes of her existence, that she is an immortal being as well as a mortal woman, one may, without ill impressions, show her, that as we admire the beauty of the rose as well as esteem its medicinal power, so her personal charms will be dear in the eyes of him whose heart is occupied by the graces of her yet more estimable mind. We may safely teach a well-educated girl that virtue ought to wear an inviting aspect.

A celebrated writer says, "First ideas are, in general, of considerable consequence. I should therefore think it wise in the female world to take care that their *appearance* should not convey a forbidding idea to the most superficial observer." Another writer says, "A prepossessing appearance is a perpetual letter of recommendation." Says a philosopher, "Reverence thyself, not only with relation to the mind which directs, but to the body which executes. God created the body not only for usefulness, but adorned it with loveliness; and what he has made so pleasing shall we disesteem, and refuse to apply to its admirable destination?"

Belle Brittan says, "Beauty is the ineffable grace of Nature, the smile of God, the light of the soul, the blessedest amenity of human existence. We all look for it, long

for it, from the cradle to the grave." Again she says, "Beauty of person is often decried, deprecated, and spoken of as a fatal gift; as if the Creator had made a mistake in conferring upon a human being that enchanting grace of form which pleases every eye, and wins every heart! And yet where is the man who would not prefer the beauty of Antinous to the riches of Crœsus? or the woman who would not rather possess the fabled beauty of Eve than the sceptre of an empress? The one is a divine gift, the other an earthly accident. I have heard an ugly woman speak disparagingly of 'belles.' Would not that same ugly woman 'give all her old shoes,' and a good deal more, to be *the belle of the world?* The eye loves beauty as the ear loves music. It commands a universal homage. Why, then, is it not 'cultivated'? Why, among the eight hundred millions of human beings upon the earth, is beauty the rare exception, and not the general rule? The cause is as radical as the defect is universal. *The natural laws which produce it are wickedly violated and utterly disregarded.*

"The children of men are conceived in sin, born in iniquity, bred in disobedience, and *therefore* the world is peopled with deformities. Let us, for instance, glance at the women of our acquaintance. The majority are ugly; many are good-looking; a few are handsome; and one or two are beautiful. Whose fault is it that all are not? *Of themselves* and their progenitors. For the sins of our forefathers and foremothers the living generation are not responsible. Not one can help being born ill shapen and badly constituted, with eyes asquint, and nose 'out of drawing;' but (and this brings me to a practical point) we can make the best of what we are. *Health, strength, and beauty can be cultivated* as well as the faculties of the mind and heart."

Woman is ever the very materialism of beauty, the temple of eternal love, the real presence of all that is lovely

and valuable. Of what inexpressible importance, then, is the pointing out the causes of the destruction, and the way of preserving the perfection, of beauty!

Disease of the menstrual organs has in all ages, among civilized nations, destroyed the bloom, beauty, vigor, and life of woman. The truth of this is fully attested in every order of society. We have but to turn our eyes, and we see on either side the withering blights of this fell destroyer of youth and beauty, like a voracious worm, burrowing to the home of death these important organs, and preparing its victim for months and years of sufferings.

If proper treatment be neglected, the general health becomes impaired, the constitution broken, and the patient, dispirited, despairing, dejected, becomes, oftentimes, scarcely recognizable. The full and rounded figure becomes, by degrees, wasted, lean, and attenuated. The bright bloom, golden clearness, and brilliant hues, are replaced by sallow tints, livid and dull. The bright, laughing eyes, so oft caressed, so oft flattered, whence issued so many flashes of love, of beauty, of joy, of jealousy, of coquetry, and which shone with such soft brilliancy, sometimes sparkling with playful malice, at others languishing and half hidden beneath their long, upturned fringes, become veiled, like dark diamonds, with a humid vapor, dim and sunken, and seem unnaturally large from the dark haloes which surround them. The lips, lately so vermilion, so full, and with a color as lively and velvety as the most resplendent flower of the earth, and seemingly formed but for kisses, smiles, and happiness, become thin, and of a dark violet hue, resembling that which has displaced the delicate transparent coloring of the cheeks and the rosy tips of the slender fingers.

The appetite soon fails, or a craving for slate, chalk, and other such like substances, takes the place of the normal desire for food; debility and exhaustion supervene; and finally the constitution becomes so undermined and broken,

that one might fancy that the bright red blood, so short time ago coursing freely the veins, had been changed by the freezing touch of death into a corpse-like lividness which now covers the lovely features. The heavens of her soul become clouded; not a star glimmers in their wide horizon; and as she sees the sweet cup of life falling from her lips, and beholds herself a wreck, that, in fancy, can never be repaired, that must drift on through life, suffering, despairing, pitied, — drift till the fatal shore is touched, and the waves of time swallow up the broken relics of her forever, — the waves of anguish dash high over her soul, and she weeps in bitterness.

That form how wasted and how weak! that face how attenuated and pale! with those eyes that are so sunken, those lips that are so thin and dull, those cheeks that the blood now never tinges, that freshness of health and happiness may never visit again! Woful, warning figure of dumb sorrow and patient pain, that was once the picture of love and beauty and youth, the mortal trinity of this world's worship!

This is no fancy: it is reality, seen and known by all medical advisers.

M. Georget very truly remarks, "There are few who can see without regret their attractions fading, and the flight of smiles and love, and the loss of the empire of beauty. These losses are felt the more keenly, because it is from others that the first knowledge of them is derived; for self-love makes many struggles, and the unwelcome persuasion is only established after many mortifications."

The preservation of the health of the female form is of no insignificant importance. With its health, we necessarily maintain its symmetry and improve its beauty.

To all young ladies especially who make personal appearance and attraction a study, this is of no insignificant consideration; for who among them would not undergo any treatment, any privation, subject themselves to almost any

amount of human endurance, ay, even perform a pilgrimage to Mecca, could they exchange their shrunken, thin, attenuated, and bony appearance, that so much taxes the ingenuity of the dressmaker to conceal, for the full and rounded figure; could they exchange the sallow tints for the bright bloom, golden clearness, and brilliant hues; the dim, sunken eye for the bright, laughing eye which shines with such soft brilliancy; the pale, thin lip for the full vermilion lip of health? How little do they dream that they are so frequently deprived of these personal attractions through that fell destroyer of female beauty, disease of the menstrual organs, and that, to possess or regain them, their *only* hope is in a judicious treatment directed towards relieving an irritated, congested, and inflamed condition of those organs! This is their only course: all others will prove unavailing. All other remedies, concocted, though they may be, in Medea's caldron, will have no other effect than to exercise the faith and patience of the credulous sufferer; for when this infirmity comes with its pale brow and sallow tints, and the gradual decay of those physical and personal attractions which have heretofore commanded the flattering homage of society, it is folly to seek for renewal of youthful charms, without attacking and dissipating the morbid process that is destroying them. This done, what do you then behold? You see the health begin at once to improve. The complexion recovers its former tint. A new deposit of fat gives roundness to the limbs, and the patient begins to recover the beauty and grace and attraction of her earlier days. The soul at once rouses, bounds with activity, and fills with its conceptions a new world. The faculties revive and expand. The heart glows more warmly. The affections take a more ardent tone. All that was before feeble and indecisive now assumes the firmness of purpose. The slumbering, feeble fires are blown into flame; and that flame stimulates, supports, pervades every action. A new being takes possession; and the whole moral and physical system **sustains a complete revolution.**

Thousands of females there are that are suffering from more or less of the above symptoms, — some with one train of symptoms, and some with another; and, when brought to the attention of their medical adviser, how little does he oftentimes understand the true nature of the case or the true seat of the disease!

Without seeking advice, the patient may submit to them for years, perhaps; but, should she at last find them so wearisome to mind and body as to be led to seek advice, she will be, perhaps, treated for some "disease of the womb," for "falling of the womb," or irritation, congestion, inflammation, or ulceration of that organ.

This, in a great measure, is owing to the opinion adopted by Hippocrates, and still too implicitly believed, — that the womb is the principal organ of the generative system, and that to the morbid condition of this organ are to be attributed almost all the sufferings of woman. Ocular inspection and attentive manual examination, however, will, in most instances, prove that the womb is not painful when touched; nor does it present much, if any, appearance of disease.

V.

CAUSES.

THE *causes* of inflammation of the menstrual organs are those conditions, incidences, or influences which precede it, and to the operation of which its occurrence is due.

These influences may be *internal* or *external*. They may exist within the body, and sufficient of themselves to induce the disease independently of any external influence: for example, a diseased neighboring organ or tissue may transmit a morbid stimulus to and induce in the ovaria diseased action; or an excess or deficiency, or diseased state, of the blood circulating in the ovaries, may prove a stimulus to disease. Or these influences may be wholly external; for example, exposure to variable temperatures, mechanical influences, sensual impressions, &c.

But internal or external influences — a diseased neighboring organ, an abnormal state of the blood, exposure to variable temperatures, mechanical influences, sensual impressions, &c. — do not *always* produce this disease, and for the reason that the menstrual organs, from their healthy condition and tonicity, are able to ward off or resist the morbid influence or stimulus.

This power of the ovaries to resist morbid stimulus varies much in different females, and at different times in the same female. Whatever lessens this power, whatever has the effect of lowering the healthful conditions of those organs, constitutes what is termed a PREDISPOSING influence or cause.

Besides the predisposing cause, there is also the EXCITING cause; and the co-operation of both is generally necessary to induce disease, — the first, by lowering the powers of the system, and lessening the vital powers of the menstrual organs to resist morbid impressions or influences, which morbid impressions or influences are the exciting causes. Take examples. Sensual impressions are often an exciting cause of this disease. A female may have been frequently exposed to this cause, yet have suffered no ill effects. The exciting cause was powerless to induce disease, because no predisposing cause had lowered the vital powers, or lessened the power of the menstrual organs to resist the morbid stimulus of the sensual impressions.

A female becomes subject to the evil effects of dissipation, late hours, loss of sleep, &c., or fatigues her body and mind by excessive exertion. The dissipation, the late hours, loss of sleep, the excessive exertion of the body or mind, lower the power of the system, weaken, debilitate, and lessen the power of the menstrual organs to resist the action of morbid stimulus; but she experiences no ill effects, for the reason that the predisposing cause is powerless to induce disease without an exciting cause. Let her, however, become subject to the exciting cause, sensual impressions, and the consequence is inflammation of the menstrual organs. In the first instance, the exciting was insufficient to induce disease without the predisposing; in the second instance, the predisposing was insufficient without the exciting cause.

In some cases, however, predisposing causes, when sufficiently strong, become the exciting and only cause of the disease. So also may exciting causes, if sufficiently strong, induce disease when there has been no predisposition.

As is seen, the causes of inflammation of the menstrual organs may be *internal* or *external*, and are divided into **PREDISPOSING** and **EXCITING** causes.

PREDISPOSING CAUSES.

Predisposing causes are influences which lower the powers of the system, and lessen the ability of the ovaries to resist morbid stimulus without inducing actual disease. It should be remembered, however, that predisposing causes, when sufficiently strong, become exciting causes.

We shall now direct attention to the more important of the predisposing causes.

IMPERFECT NOURISHMENT, from defect either as regards *quantity* or *quality* of food, or from incapacity of the digestive powers, enfeebles the heart, impairs the tone of the arteries, induces an irritability of the nervous system, and renders the ovaries and other organs of the economy more or less susceptible to the action of morbid stimulus.

The body is always changing. It is constantly undergoing a waste, and continually making a demand on the blood for its restoration. The muscular, nervous, bony, and other textures of the body, having lasted for a longer or shorter time, become broken down, and their particles displaced, dissolved, and absorbed into the blood, and by it carried to the kidneys, skin, and other eliminating organs, to be thrown out from the system.

Food is a restorative medicine, a specific for the disease hunger, — a disease caused by a demand from the blood for the restoration of its failing constituents. The constituents of the blood become impoverished by reason of the demand made on them by the body, whose particles are constantly wasting, and as constantly requiring renewal, which renewal can come only from the blood. "The blood is the floating capital lying between absorption and nutrition, — a treasury liable to continuous drafts from the latter, and requiring, therefore, constant supplies from the former to keep up its efficiency." — *Dr. Chambers.*

The purpose, then, of food is to supply material for the growth and for the repair of the waste of the body, to

maintain its temperature and the various functions at the healthy standard. Out of the materials of the food, the blood is elaborated and all the tissues constructed; and therefore it should be of a *quality* which best suits the powers of digestion and the wants of the system for nourishment and warmth. This quality will be found to be that which consists in mixed proportions and varieties of *animal* and *vegetable.*

Nature's aliment, milk, contains *albumen*, *oil*, *sugar*, and *water;* and food best suited to maintain the general health will be found to include these four elements, each of which is essential, and has its proper function in the system.

Fish, fowl, bread (gluten, which is vegetable albumen), lean of meat, milk (caseine), furnish albumen to the blood, and are essential to the formation of the muscular, nervous, and other tissues of the body, with the exception of fat. This element, without a proper admixture of the others, induces vascular fulness of the blood-vessels, and conduces to congestion, inflammation, hemorrhage, gout, &c. Animal food is more easily digested than vegetable in many cases of dyspepsia. Gouty and plethoric individuals, however, should restrict its use. Vegetable is more deficient in those essential mineral ingredients, salt and lime, than animal food.

It is not essential to the *general reader* that we should pause here for the purpose of recapitulating the arguments in favor of and against the opinion, that instead of the fibrine of the blood entering into the formation of tissues, as has been generally supposed, it is rather the result of the breaking-down of the same, and made up of the effete and worn-out matter of the system, seeking its way to the different glands which are charged with the office of purging the blood of all morbid materials.

Butter, oil, fat of meat, &c., are essential requisites for the formation of the fatty textures or adipose tissues, and other structures of the body, and for the maintenance of

animal heat by respiration: hence the large consumption of oil by the Esquimaux and those living in the higher latitudes. Without this element, the body shrinks, and loses its smooth and pleasing outline; the skin becomes shrunken, harsh, dry, husky, wrinkled, and the mucous passages deficient in their peculiar secretion. This element in excess, or without a proper admixture of the others, leads to a superabundant deposit in the adipose tissue, and conduces to obesity, besides deranging the organs of digestion, and inducing diseases of the skin and liver, through which the excess is carried off: hence boils, and other diseases of the sebaceous follicles, skin-diseases, bilious complaints, gout, &c.

Fruit, vegetables, &c., containing saccharine matter, also the farinaceous preparations, such as arrow-root, tapioca, sago, and the like, which are identical in their ultimate composition with sugar, serve as diluents to the two former elements, albumen and oil; rendering them not only more acceptable to the stomach, but more easy of digestion. This element promotes the secretions, and purifies the blood; prevents an excited circulation, feverishness, and vascular fulness, which might result in congestion and inflammation; assists in neutralizing and eliminating lithic acid, and prevents the occurrence of gout and gravel.

The last element, water, is requisite for reducing the other elements to a state of solution fitted for the formation of blood and other fluids of the body, and should be taken with each meal to assist in the breaking-down and solution of the solid parts of the food.

It is not only essential that the above elements should constitute the ordinary sustenance, but requisite that they should be of good quality. The gluten of badly-baked and heavy bread and pastry, the fibrine of stale and salted meats, tainted and rancid butter and oils, weaken the functions of the stomach. Assimilation becomes imperfect, the blood becomes badly nourished, feebleness ensues, and the powers of the system become lowered. Bread and pastry

should not only be well baked, but the grain from which the flour is manufactured should be free from impurities, of the best quality, and contain more or less bran; for very white and refined flour contains less gluten, is less nutritious, and more constipating. Fresh meat is more nutritious, of easier digestion and assimilation, than salted. Meat of young full-grown animals is more nutritious and easier of digestion than that of animals older. Beef and pork contain a large proportion of fat, mutton somewhat less, veal still less; and in the flesh of fowl, game, and fish, there is only a small quantity.

Excessive Nourishment. — When the appetite is pampered by highly-seasoned dishes, or when it is inordinate, and large quantities of nutriment are consumed, the digestive organs become overburdened, overtasked, distended, and irritated. More food is taken than is required by the system. Nutrition exceeds the waste. The blood-vessels become distended with blood; and inflammatory disorders, hemorrhages, plethora, apoplexy, and gout may be the result, the latter more particularly. Excess of food, more especially if of a highly nitrogenized character, as well also as an imperfectly-acting digestive function, preventing the proper formation of chyme, leads to excessive formation of uric acid in the system, and tends powerfully to the development of gout; which poison may, through the monthly stimulus transmitted from the ovaries, become localized in the fibrous tissues of the womb, and those painful infirmities — dysmenorrhœa, irritable uterus, &c., be lighted up.

Excess of food, and mal-assimilation, tending to formation of uric acid and development of gout, may not only involve the generative, but other organs and tissues of the economy. Uric acid in excess circulating in the blood very frequently gives rise to secondary dyspepsia with its usual accompaniments, heart-burn, acid eructation, distention of stomach and bowels, tarnished, swollen, and unhealthy-looking skin,

sleeplessness and bad dreams, palpitation of the heart, pain in the side, constipated bowels, and a scanty secretion of high-colored and acid urine, which, on cooling, deposits sediments of crystallized uric acid, varying in color from a brick-dust red to a pale yellow.

Wine-bibbing is injurious. It over-stimulates the stomach, and injures digestion. If food be in good quantity, and of good and nutritious quality, it stimulates the stomach as far as is consistent with healthy action. If to this stimulation be added the stimulus of liquors, over-stimulation and weakening of the powers of the stomach and the system generally will be the result.

Imperfect and excessive nourishment alike induce symptoms of vascular and nervous irritation and general weakness. The powers of the system become lowered, feebleness ensues, and the ovaries and the different organs of the economy, participating in the general weakness, become less able to resist the action of morbid stimulus.

Habitual indulgence of an inordinate appetite for food, frequent recourse to liquors, habits of intemperance, late hours, loss of sleep (all tending to the impairment of the tone of the digestive and assimilating organs, impoverishment of the blood, and debilitation of the vital powers), induce decay, loss of the enduring tone of the muscular and other solid tissues of the body, and a condition of system that would, in a young beauty, not only lose her all her charms, but render her pre-eminently susceptible to the stimulus of morbid action; and if, with this condition of system, this susceptibility to disease, she becomes subject to continued and repeated incitations of the nervous and sexual systems, disease of the menstrual organs will inevitably result, with all its multiplied and distressing symptoms.

We will let an English lady speak for us. What she, in 1811, wrote to her young lady friends, loses none of its force from the lapse of time that has since intervened. She

says, "A young beauty, were she as fair as Hebe, and elegant as the Goddess of Love herself, would soon lose these charms by a course of immoderate eating, drinking, and late hours. Some of my readers may start at this idea, and wonder how it can be that any lady could be guilty of either immoderate eating or drinking. But when I speak of *inordinate* eating, &c., I do not mean feasting like a glutton, or drinking to intoxication. My objection is not more against the quantity than the quality of the dishes which constitute the usual repast of women of fashion. Their breakfast not only sets forth tea, coffee, and chocolate, but hot bread, and butter. The last two, when taken constantly, are hostile to health and female delicacy. The heated grease, which is their principal ingredient, deranges the stomach. After this meal, a long and exhausting fast not unfrequently succeeds, from nine or ten in the morning till six or seven in the evening, when dinner is served up; and the half-famished beauty sits down to sate a keen appetite with spiced soups, fish, roast and boiled meats, game, tarts, sweetmeats, ices, fruits, &c. How must the constitution suffer under the digestion of this *mélange!* How does the heated complexion bear witness to the combustion within! And when we consider that the beverage she takes to dilute this mass of food, and assuage the consequent fever in her stomach, is not merely water, but Champagne, Madeira, and other wines, foreign and domestic, you cannot wonder that I should warn the inexperienced creature against intemperance.

"The superabundance of aliment which she takes in at this time is not only destructive to beauty, but the period of such repletion is full of other dangers. Long fasting wastes the powers of digestion, and weakens the springs of life. In this enfeebled state, at the hour when Nature intends you should prepare for general repose, you put your stomach and animal spirits to extraordinary exertion; your vital forces are overtasked and overloaded; and thus almost

every complaint that distresses and destroys the human frame may be engendered. I am fully persuaded that long fasting, late dinners, and the excessive repletion then taken into the stomach, with the tight pressure of stiffened stays on the most susceptible part of the frame then called into action, and the midnight, nay, morning hours of lingering pleasure, are positive causes of disease; and delicate proportion gives place either to miserable leanness or shapeless fat; the once fair skin assumes a pallid rigidity or a bloated redness which the vain possessor would still regard as the roses of health. To repair these ravages comes the aid of padding to give shape where there is none, stays to compress into form the chaos of flesh, and paints of all hues to rectify the disorder of the complexion. But useless are these attempts."

No one certainly can question for a moment the truth of the above. Excesses, with their multiplicity of morbid excitements, and incitation of the sexual system, are directly and indirectly among the leading predisposing causes of the disease under consideration; and when dissipation and immoderation, with all their enervating and weakening influences which exhaust the powers of life, have engendered disease of the menstrual organs, let them be abandoned, or expect no lasting benefit from treatment, no matter how judicious or well advised it may be.

Impure Air. — Confinement in ill-ventilated rooms and crowded cities is another debilitating, predisposing cause of this disease. To the former especially may be imputed many of the ills that woman is heir to. The pernicious and barbarous practice of crowding three or four, or half a dozen, young persons into one small sleeping-apartment, as is often the case in some of our boarding-schools, must not pass unnoticed. To this alone may be ascribed the commencement of ill health in thousands of young women. They breathe in a contaminated atmosphere, and take into their system through the lungs a poison as deleterious in

its effects as the deadliest miasm. They take in, in fact, a poison substantially the same as the fumes of burning charcoal, which, when inhaled, produce death. It has been stated that the body is always changing; that it is constantly undergoing a waste; that the muscular, nervous, bony, and other tissues of the body, after having lasted for a longer or shorter time, become broken down, and their particles displaced, dissolved, and absorbed into the blood, and by it carried to the *lungs and the skin*, as well as to the kidneys, liver, and other eliminating organs, to be thrown out of the system. The quantity thrown off by each person *during a single night* is not less than *sixteen ounces*. This may be readily verified by stepping on to the scales in the morning, and it will be discovered that a pound in weight has been lost during the night. These sixteen ounces of matter lost have been thrown out of the system partly by the way of the lungs, and partly by the way of the pores. The escaped material is made up of carbonic acid, decayed animal matter, or poisonous exhalations, and is diffused through the air in part, and in part absorbed by the bed-clothes. Half an ounce of cotton burnt in a room every half-hour for eight hours would render the atmosphere almost unendurable; yet the sixteen ounces of cotton-smoke are far less poisonous than sixteen ounces of effete and worn-out matter of the body thrown out into the atmosphere by the lungs and skin. If, then, the sixteen ounces of matter thrown off by one person are so pernicious to health, what must be the deleterious effects of breathing an atmosphere contaminated with the poisonous exhalations of half a dozen! The blood becomes slowly poisoned by the inhalation of an excess of carbonic acid. It is insufficiently supplied with oxygen (which by its contact with the matter of the brain generates nerve-power); and faulty innervation, imperfect development, impaired physical power, languor, a pallid cachectic complexion, diminished secretions and excretions, are the consequence. If combined with inactivity and indo-

lence, it conduces to the development of scrofulous and tuberculous matter.

The want of pure air in our crowded cities is another fruitful source, not only of the disease under consideration, but of a multiplicity of other diseases. How striking the contrast between the vigorous rustic with his ruddy cheek and stalwart frame, and the pale and sallow-tinted countenance and faded looks of the townsman! Compare the health-glowing countenance of the village dame, and her fully-developed figure, which tell of pure air and bracing exercise, with the pale cheek, sunken eye, thin, bony, and elongated figure of the city miss! What is the cause of this vast difference? None other than the noxious and weakening influences of city life, — the want of pure air and exercise, late hours and nocturnal dissipations, small and ill-ventilated rooms, narrow and filthy streets, with no open spaces, parks, or gardens. But what matter! If our rooms are small and ill-ventilated, if our streets are narrow and filthy, if we give but little heed to proper sewerage, and if we have no open spaces or parks, we have plenty of *churches*. If we have no physical reformers, we have plenty of *preachers*. If we care nothing for woes too deep for tears; nothing for little children, with their pale and sickly faces, blear-eyed, covered with eruptions, with rickety limbs, and scrofula written in every feature; if we care nothing for men and women weakened, enervated, prematurely old and haggard; if we care nothing for *bodies* of helpless human beings, — we give devoted attention and enthusiasm to their *souls*. If we build our tenement-houses without any regard to ventilation, comfort, or health, and locate them in narrow and filthy streets where land is comparatively cheap; and if, to swell our monthly income for rent, we crowd fifty or a hundred families into a single building with no grass-plot attached, square, or garden for the languishing and suffocated little children, — do we not build for their reception magnificent hospitals and asylums which

make our breasts swell with pride as we gaze on the architectural beauties of these splendid edifices? If we do not widen streets, or open squares and parks, or build wholesome cottages in healthy localities for the poor artisan, do we not spend thousands, tens and hundreds of thousands, of dollars yearly in printing tracts and hiring colporters to look after his *spiritual* being? What is the physical compared with the spiritual being!

Six days in the week the poor artisan is entombed in musty, airless rooms by his constant, sedentary employment. Sunday is his only day of respite from a monotonous life of work. Do we give him cheap railway-trains to tempt him to go out on that day from between bricks and mortar to breathe the fresh pure air of the country? Do we give him public gardens and promenades, with musical bands, and various social amusements, where, free and uninterrupted, he may sing and dance, bracing lungs and limbs, and lighten the burden of his cares with every hearty laugh, and lay in a stock of health and happiness and content to carry him through the week? Not precisely; but we invite, nay, legislate, and indeed press upon him, to put aside mirth and frivolity, and put on a serious cast of mind: we exhort him to spend his only holiday in hearing the Word, and in reading religious books; and, if his employment or standing in society depends on his sober and sedate deportment and constant attendance at the house of worship, he is placed under a restraint most galling, the effects of which will be destructive in the extreme. He requires fresh air and exercise; he requires amusements. His physical being demands it. Any infringement on a physical law is as much a crime as the breaking of a moral one. The human body ought to be reverenced; and the laws of health should claim the *highest* place in man's respect. It is as incumbent on him to live a virtuous physical life as a moral one. The one deserves as great admiration and praise as the other.

What a work is here for the physical reformer! We are no niggardly people. We spend our money lavishly. Works of art, magnificent buildings, churches, and monuments to the dead, attest to the truth of this; but of how much more value than all the churches, monuments, or institutions, would be the making provision for the physical well-being of our citizens, remodelling our old towns and the poor's quarter, widening streets, opening parks and gardens, which are the lungs of a large town, and building for our poor, hard-working artisans rows of well-ventilated and convenient cottages in healthy localities!

The secret recesses, lanes, and alleys of all our large cities are the foci of disease; and noxious exhalations and corruption riot in them at pleasure. They require remodelling to admit pure air; for those who are obliged to live in these localities are gasping, languishing, and dying for the want of it; are growing up withered and stunted, or dying of scrofula and typhus.

"Five hundred thousand people are crowded into the tenement-houses of this city (New York). In the main, they are herded into apartments of the smallest and most inconvenient description, falling far short of the requirements of recognized sanitary laws. Physiologists assert that each person should have at least fifty square feet of area, and seven hundred cubic feet of air space. In the ordinary tenement-houses there are only about fifteen feet of ground area, and three hundred and seventeen cubic feet of air space to each person. Even this insufficient supply is materially diminished, if we confine our remarks to the dormitories. Considering the vitiated atmosphere which the occupants of this sort of dwellings are forced to breathe, it is scarcely to be wondered at that scrofulous and pulmonary complaints are general, and that the death-rate is out of proportion to that of London and other cities. Something, therefore, ought to be done to improve the ventilation of our tenement-houses." — *Sunday Times, April* 4, 1869.

Want of Daily Exercise. — The want of daily exercise in the open air is one of the most fruitful predisposing causes of this disease. The healthy vigor of all the functions of the body and mind, which can only be maintained by active exercise under the health-invigorating stimulus of pure air and sunshine, becomes lessened and weakened by the torpor of indolence and inactivity. The muscles are the first affected, parting with their strength and tonicity. From an enervated muscular system, the circulation becomes defective and languid, and the extremities fail to receive their necessary supply of blood: hence cold feet and hands, and dry skin, while the internal viscera, from an unequable circulation, are in a state of congestion and engorgement: hence congested liver, hemorrhoids, constipation, indigestion, &c. Respiration being but little exercised, the effete matters of the blood, which should be eliminated through the lungs, are retained in the circulation, and thrown back for elimination upon the liver, the skin, and the kidneys: hence congestion, inflammation, induration of the liver, and deranged digestive organs, erysipelas, and other diseases of the skin, disease of the kidneys, Bright's disease, dropsy, rheumatism, gout, &c., may arise, and for the reason that an organ through which effete matters of the blood are eliminated is exceedingly prone to take on inflammatory action from over-stimulation when forced to eliminate not only its own share of poisonous, effete matters, but poisons that should be sent out of the system through other organs.

After scarlet-fever, when the kidneys are suddenly called upon to eliminate a large quantity of morbid material from the blood, congestion of those organs is often induced from the excess of poison, and the urine is diminished, and dropsy results. "A great accumulation of the elements of *one* secretion, from defective action of *one* organ, may so interfere with the functions of *others* as at length to derange them; for it is unreasonable to suppose that the kidneys

can long eliminate bile or other matters foreign to their duty, as they are often called on to do when the liver is obstructed, without embarrassing their functions, and perhaps endangering the integrity of their structure; or that mucous membranes can long perform the function of the skin, in addition to their own, without injury, as they endeavor to do when perspiration is checked." — *Henry Hunt, M.D., London.*

We will here take the occasion to remark that Bright's disease, dropsy, rheumatism, gout, &c., cannot be regarded as diseases, — substantive diseases, — but rather *symptoms* of a disease, and that disease a poisoned condition of the blood, brought about by, and inducing, faulty secretions and excretions, or derangement and closure of one or more of the outlets through which decarbonized and effete matters are sent out of the circulation; and requiring a treatment directed *not* to the deranged kidney or liver, but to that which caused the derangement, viz., *poisoned blood.*

So long as the blood-poison remains to derange the function and structure of the kidney, it would be just about as sage an undertaking to search for the philosopher's stone in a dandy's dressing-case as to seek to cure Bright's disease by remedies directed to the kidneys. And why? Because effects are doctored instead of causes, symptoms instead of diseases, and names instead of things. But it may be said that post-mortem examination reveals extensive disease of the kidneys, and that peculiar disorganization known as Bright's disease. True: so will a further examination disclose a disease of the liver, of the skin, and of the lungs. When blood-poison causes death, *all* the eliminating organs will be found to have become more or less compromised. While speaking of the changes in the urine consequent on a poisoned state of the blood, Dr. *Hunt* makes the following remark: "I have dwelt at this length on these points for another reason, viz., the prevailing habit of attributing changes in the urine to an erroneous action of the kidneys;

whereas the fault more frequently lies in the material (the blood) to be distilled, than in the kidneys, the apparatus of distillation."

When we speak of blood-disease, we mean not to be understood, that, having traced disease back to the blood, we are content: we are very well aware that the blood itself is dependent for its constitution on the results of the primary digestion in the alimentary canal, and that its disease is not unfrequently, very often, in fact, associated with the quality or composition of the digestive fluid.

The healthy vigor of all the organs and tissues is only maintained by exercise in the open air. Without exercise, neither respiration nor circulation can fully accomplish the purposes which it is intended to serve. Without exercise, the stomach becomes weakened, the digestive processes changed, and the chyle poor in quality. Without exercise, the blood fails to be duly propelled to all the capillary vessels; and they consequently become inadequately nourished, while others become overloaded and oppressed. Exercise quickens the pulsations, and causes deep inspirations: the air rushes to every portion of the lungs, and the blood sent thither by the heart becomes highly oxygenated. After taking in its supply of oxygen, the blood is brought back to the heart, and by it injected into the brain, where, by the contact of the oxygen with the matter of the brain, nerve-power or nerve-force is generated, and sent down throughout the system, invigorating, strengthening, innervating every muscle, every fibre and nerve, every bone, in fact every tissue, of the body. To this nerve-power generated in the brain, every organ and tissue owes its healthful vigor, its strengthened and innervated condition. Without this nerve-power, the organs and tissues would die. The red globules of blood are the receivers of the oxygen in the lungs, and the carriers of it to the brain. If these oxygen-carriers are in good numbers, in other words, if the blood be healthy, and rich in red globules, and this condition be

main ained by being constantly supplied by good and nutritious food as well as properly oxygenated in the lungs by exercise in the open air, an invigorating nerve-power will be constantly generated, and sent down throughout the system, sufficient to maintain it in perfect health.

Indolence deranges the functions of Nature, and none more than the menstrual function. Woman can no more thrive without sun, fresh air, and exercise, than can the flower. A plant springing up under a shelter, and deprived of exercise occasioned by the winds and the stimulus of the sun and pure air, loses its bright tints and colors, pales and droops. So is it with woman confining herself within doors. She, too, loses her bright tints and colors, becomes enervated and weakened; and the slightest breeze of accident, the least morbid stimulus, is sufficient to light up in her system disease wherever the susceptibility is the greatest: and no organs throughout her economy are so pre-eminently susceptible to disease as the menstrual organs. And why? Because of their congestion produced by the process of menstruation.

"There is a vital relation between sunshine and a vigorous human being. Seclusion from sunshine is one of the greatest misfortunes of civilized life. The same cause which makes potato-vines white and sickly when grown in dark cellars operates to produce the pale, sickly girls that are reared in our parlors. Expose either to the direct rays of the sun, and they begin to show color, health, and strength." — *Dr. Dio Lewis.*

If a young woman would be well shaped and well conditioned, and would escape pain and the doctor; if she would have grace and elasticity of movement, color in her cheeks, and admirable proportion in her limbs; if she would have a faultless foot and ankle, limbs of swelling proportion, the flesh firm, and the shape such as no sculptor could improve, — she must avail herself of sunshine, and use due exercise *on foot.* Three, four, five, or six miles a day is not

any too much exercise for a woman in respectable health. Horseback-riding is an excellent auxiliary, as it gives much the same motion, with double the animation, in consequence of the change of air and variation of objects. Carriage-exercise is *too lazy* an exercise to do much good, unless the female is an absolute invalid, and walking too fatiguing, and horseback-riding out of the question.

Morning country air is the finest bracer to the nerves, and the surest brightener to the complexion. Then every thing around — the gardens covered with flowers, resembling one gigantic bouquet; the air embalmed, saturated, with the odors of thousands of flowers; the rolling sheet of green meadows and cornfields; the lawns and green hedge-rows sparkling like diamonds with dew; the checkered squares of cultivation; glittering brooks; high elms and maples, with leaves green and transparent in the sunlight, and trembling to the slightest breathings of the wind; vines bending under their delicious burdens; verdant meadows checkered with groups of cattle; and birds of all kinds warbling, and fluttering from branch to branch, and vying with each other in their happy choruses — speaks peace to the heart, and awakens piety and contentment. The air rings with joy. All Nature is rejoicing. Under such stimulus, such influences, such inhalations, perfumes, and sweet emanations of Nature, and shut out from the fallacious glitter of a false and malicious world, can exercise promote other than generous aspirations, elevation of soul, calm and proud serenity of mind, healthful looks, cheerful mien, and hardy and invigorated frames?

The salutary benefit produced by pure air as experienced in exercise out of doors, rides and drives in the country, is universally acknowledged. But pure, free air is not any the less essential to the maintenance of the general health than is a *variety* of its qualities: hence those living inland should avail themselves of the benefit to be derived from the air of the seacoast; those on the seacoast, from the air

of the inland; and those in the valleys, from the air of the mountains. To obtain the greatest amount of good from the variety of its qualities, travelling alternately by sea and by land should be adopted.

Excessive Exertion of the Mind. — As with the body, so with the mind, — due exercise and activity, with variety of excitement and relaxation, contribute to its well-being. But when the kind and amount of mental exercise, or its long continuance, exceed what the strength can bear or rest recruit, the animal functions become exhausted and lose their balance.

One of the earliest, and perhaps most frequent, predisposing causes of the disease under consideration is the fatiguing mental labor of educational discipline and culture. From false and fatal notions that mental endowments are matters of the highest importance, and most worthy objects of ambition, the endowments which are merely physical are entirely overlooked, or regarded as matters of secondary importance. Formerly it was the custom to look upon physical strength as the highest excellence; and exercise by games, feats of agility and strength, were instituted, which called into play all the muscles of the body. But the march of civilization has decided that such endowments are matters of small importance. It has decided that young girls, as soon as possible after leaving the arms of the nurse, must be equipped for exhibition in the parlor, and taught that the sun and fresh air are institutions got up expressly for vegetables, tanned skin, and freckles.

Mind has been, and will probably long continue to be, elevated above matter. Physical excellences are things unknown and uncared for. Mental endowments carry the day. Literary pursuits, intellectual enjoyments, poetry, and morality engross the attention. Bodily sports and exercises, athletic and healthy frames, are regarded as necessary to pugilists and the lower orders of society, but beneath the dignity of those who believe their peculiar province to be

the cultivation of the mental powers. Mind triumphs over matter; and the great end and aim of the higher order of society is to cultivate the intellect, and acquire renown by literary merits. Corporeal endowments are neglected and despised; and degenerated, weak, puny, and enervated frames take the place of manliness and vigor. But what matter though the body is weak, provided the mind is strong! How rarely, though, does true literary excellence and physical insignificance unite in the same individual! As the physical strength declines, so does mental superiority. Disordered sensations and an unbalanced mind follow quickly any infringement on physical laws. Nor is this all: pale and sallow tints, jaded looks, spare and puny frames, consumption, dyspepsia, and nervous weakness, attend on physical degeneracy; and the children inherit the soul and body destroying legacy. Nature demands that an equal and impartial attention be paid to all the faculties, and that an equal interest be taken in physical as in mental culture. No one of our powers, either mental or physical, can be neglected with impunity. The laws of the body will not be neglected. They demand our attention; and woe to him who offends against them!

However powerfully the want of reverence for the human body has operated in degrading man, it has far more degraded woman. To be strong and vigorous, to possess athletic and healthy frames, powerful muscular development and keen appetites, — the best of all signs and tests of health and of a well-spent physical life, — are scarcely thought to belong to her province. They are not considered feminine virtues, but rather detract from her peculiar charms.

That their daughters may become women of talent, geniuses, and objects of universal admiration, is the Alpha and Omega, the first, best, and greatest object of ambition of many mothers of the present age; and, ere their daughters have learned the distinguishing characteristics between

pap and plum-pudding, they are hurried off to a boarding-school, where their young, tender, soft, and half-grown brains are diligently and mercilessly racked with Latin, algebra, astronomy, &c. And what is the result? The confinement, the study, the thought, the brain-work, requiring and absorbing the greater portion of the nerve-power, none is left to be sent down throughout the system to innervate and invigorate the muscles, skin, and different organs and tissues of the body. The tone of the muscles becomes impaired, the circulation becomes languid, and the blood improperly purified; the feet and hands become cold; the skin dry, harsh, husky, with scarce any perspiration. The internal viscera become congested and engorged with blood from the unequable state of the circulation. The biliary organs become overloaded, oppressed, and congested from plethora of their blood-vessels loaded with non-eliminated poisons seeking at this point an outlet: in other words, she "gets bilious." The biliary action becomes suspended, the alimentary organs deranged, and the effete matters of the blood are thrown back into the system to seek an outlet by the way of the kidneys. The kidneys become overloaded and oppressed: the poisoned blood overstimulates and inflames them. They fail in their function, and cease to cast off the effete surplusage of the economy, and it is thrown back again into the system. It seeks an outlet by the way of the skin; it inflames it, and pimples appear. It seeks an outlet by the lungs, and a cough supervenes. At last, the great mass of the blood becomes poisoned, and loses its fine and delicate crasis. The cheeks pale; and the deposit of fat, which gave roundness to the limbs, becomes lessened, and every organ and tissue weakened and enervated, and every function perverted. But what matter! the young lady *must* be educated. It's only a "little cold," and "will soon pass off." The idea of leaving school to go home for rest and recreation is "simply ridiculous," a "waste of valuable time;" and, besides, she

must keep along with her class in astronomy and her class in algebra, evidences of Christianity, and political economy. She *must* "finish up" her French and her Italian, her Latin, her Greek, and her German: she "must" keep along with her geography and rhetoric and history and natural history and arithmetic and chemistry, music on the piano, the harp, and guitar. And her vocal lessons, her drawing and painting and embroidery, her philosophy, her grammar, compositions, and penmanship, must not for a "single day" be omitted, — until at last the brain has been worked, bruised, racked, and tortured, as though it was some extraordinary mystical, magical something or other which was exempt from the ordinary laws which govern all other organs of the body, and may be tasked to any degree with impunity: and, with body and mind completely worn out, she falls victim to disease, passes away, and ignorance and stupidity attribute the sad termination to "taking cold," or some other trivial cause.

"The 'forcing' system, adopted in schools, or, as an Albany editor terms it, our steam and lightning mode of teaching, is beginning to excite some of the attention it ought to receive from the philanthropical intelligence of the period. It gratifies arrant vanity, and it also *murders*. At a recent school examination, a boy, not more than twelve or thirteen years of age, was put through a course of exercises in algebra. He 'did' with great readiness perplexing sums which would have puzzled many a man who considers himself a good accountant. But his pale, thin face, almost destitute of color, and traced with blue veins whose lines were painfully apparent, his tired expression, and the heavy lines under his eyes, told at what cost of physical development his mental powers must have been acquired. Such sights in schools ought never to be seen." — *New-York Express, March* 4, 1869.

"A feeble state of health," says Dr. *Leared* of London, "can be often traced to an over-strain of the mental powers,

— a strain daily increased amongst men by the spirit of emulation, fostered and rewarded by the competitive system to an extent formerly unknown. Accomplishments amongst young girls are made objects of relentless severance. In both sexes, at a time when growth is incomplete, and new functions are springing into existence, the mental are developed at the expense of the bodily powers. Nutrition suffers, because appetite and digestion are impaired, and the power of the mind itself is weakened."

"Little do parents know or think," says *Acton*, "of what they sacrifice in unnaturally forcing the intellectual at the expense of the muscular development. Our ancestors valued a man for his muscle: we go into the other extreme; and, unfortunately, many of the attempts of modern education tend only to the development of intellectual superiority, and children are confined to the schoolroom for hours, that, at an early age, had better be passed in the open air.

"If such parents would read the biographies of eminent characters who have succeeded in the highest walks of their various professions, they would find that one of the most necessary means of success is a strong constitution. If on this be ingrafted superior intellectual endowments, accompanied by that energy of character which usually attends the strong, success in after-life may be nearly insured. Such are not the youths whom we see cut off in the prime of life just as they are giving promise of great distinction, and whose parents look back with regret, and ask themselves with justice if they have not been partially instrumental in causing these intellectual suicides."

Exposure to Variable Temperatures — is another predisposing cause of this disease. The purpose of cloth ing. as a means of preserving the health, is to maintain as much as possible an equal warmth of the surface and extremities of the body. Some of our young ladies, though,

"don't see it" in any such light. Fashionable and pernicious exposures — where the neck and arms half denuded, and the feet scarcely more protected, are subjected to frequent and sudden changes from heat to cold, abruptly exciting or repressing the regular secretions of the skin, roughening its texture and injuring its hues — are very common predisposing causes to many serious diseases; one of the most frequent of which is the disease under consideration, — disease of the menstrual organs. The want of proper protection of the feet from damp is one of the most fruitful sources of this disease; and the same may also be said of the strange habit of some ladies in the exposure of their back and chest.

We shall here let our English authoress speak. Touching the matter of style of dress, modesty, &c., she says, "Fine taste in apparel is ever seen the companion of pure morals; while a licentious style of dress is as certainly the token of a like laxity in manners and conduct, and calculated to awaken any other feelings than those of respect and love. Virgin, bridal beauty, when she arrays herself with taste, obeys an end of her creation; that of increasing her charms in the eyes of some virtuous lover, or the husband of her bosom. She is approved. In all cases, a modest reserve is essential to the perfection of feminine attraction. Even heathen fable inculcates this lesson. The God of Love himself once felt the passion he so universally excites. But how? It was not any one of the unzoned nymphs who attended his mother's court that awakened his desire. The gentle influence streamed on him from charms concealed behind a veil. The beauties of Psyche were enveloped in mystery. It was the heavenly cloud of modesty. The sighs of love could not remove it; even on the nuptial couch it shaded her charms, and she shone the fairer through its snowy medium.

"Good sense should be the test of all rule, whether ancient or modern. Whatever is incompatible with good sense

must be false. Modesty should, on the same principle, be the test of the propriety of all personal apparel; for whatever is incompatible with her ordinances must degrade and betray.

"In no case would a true friend or lover wish to discover to the eye more of the 'form divine' than can be indistinctly descried through the mysterious involvement of approved and tasteful drapery. The exposure of the bosom and back, as some women display those parts of their person, is not only repugnant to decency, but exceedingly disadvantageous to the charms of nine women out of ten. When a woman grown to the age of discretion, of her own choice 'unveils her beauties to the sun and moon,' then from even a Helen's charms the sated eye turns away loathing. It has discerned the licentious heart beneath the swelling breast, and its beauties no longer captivate. The libertine and the gross epicurean may feast his imbruted gaze upon a form so stripped of decency; for he is a creature whose senses are bent to the earth, and the basest offsprings are his banquet; but a man of delicacy, of worth, turns from the couch of sensuality, though Venus herself reposed there, and with celestial rapture clasps to his warm and noble heart the unsunned bosom of the chaste and vestal-inwrapped fair.

"Policy, if nothing else, should direct maidens to be more sparing of their attractions. An unrestrained indulgence of the eye robs the imagination of its power, and prevents its consequent influence on the heart. And if this be the case where real beauty is exposed, how much more subversive of its aim must be the studied display of an ordinary or deformed figure! The monstrous exhibitions that some women make of their backs is a fashion that sets taste at defiance. Even with the fairest forms and finest skins it is injurious to the desired effect. It discovers a part of the shape, which, if not seen wholly (that is altogether with the whole of the well-shaped bust), is far from pleasing.

The beauty of the back depends upon the general outline seen at once, where, with a single glance, can be taken in the finely undulating line, which, gently swelling from muscle to muscle, completes the perfect form. However, bad as the taste is in this respect, we must congratulate ourselves that vanity has not yet trod so far on modesty as to make her votaries unveil themselves to the waist."

There is much force, and not a little good hard sense, in what we have quoted above. It *may* be proper for a lady to betray her person to the very verge of immodesty: this is a question whose *pros* and *cons* we will leave for others to reconcile; but that such a costume is conducive to disease and death is as morally and physically certain as proofs and records can make it. We wonder that a sense of personal comfort, aided by well-founded conviction that the highest and noblest beauty comes only from the highest degree of health, does not impel woman to prefer utility before absurd whims of fashion.

The protection of the feet from damp, the arms and chest from cold and variable temperatures, are matters of no small importance; and what is still of as much if not more consequence, in a fitful climate like this, is to effectually protect the limbs and the pelvic organs by warm *drawers*. The absence of this indispensable vesture has been the source of much infirmity to women. Strange, indeed, is it, that woman, with the good sense she ordinarily possesses, should evince such reckless disregard for health as is often observable when she equips herself on occasions of public exhibitions, — a gossamer dress with low neck; back, chest, and arms bare; the lightest slippers; the thinnest underclothes; the biggest sort of crinoline, and — *no drawers*. Is it to be wondered at that she destroys her health, her beauty, or consigns her body to the care and keeping of a marble slab in Golgotha? Let her bear in mind also what might be the serious consequences of some momentary piercing eastern blast, or what might be

the "display," in case of accident "by flood or field or fire," and the after-remembrances of the "disaster" by herself and *others*. No fashion should be able to strip her of this decent and healthful covering. She should consider it as the sign of her delicacy, as the pledge of honor to shelter her from the gaze of unhallowed eyes, and as the protector against an early old age, deeply-furrowed wrinkles, disease of the menstrual organs, and chronic pains.

Causes which impede or derange Functions.— Mechanical causes, such as long-continued pressure of articles of clothing, are not unfrequent causes of disease. One of the most frequent is the preposterous and baneful practice of *tight-lacing*, acting by compressing the chest and stomach, forcing down the bowels and the womb, producing structural lesion of the neck of the latter by its contact with the floor of the pelvis. The compression about the chest and waist, as well also as bands, strings, &c., in the adjusting of heavy skirts, prevents the free return of blood from the pelvic organs, which, with the monthly turgescence of those organs produced by the process of ovulation, is liable to induce engorgement and disease of the ovaries.

We will let our English lady speak for us once more. She says, "The bosom, which Nature has formed with exquisite symmetry in itself, and admirable adaptation to the parts of the figure to which it is united, is, by many of these stays, transformed into a shape, and transplanted to a place, which deprives it of its original beauty and harmony with the rest of the person. A vile taste in the contriver, and as stupid an approval by a large majority of women, have brought this distortion into a fashion; and, in consequence, we see not only the waist squeezed into a circumference little more than a common sized stove-pipe, and the bosom, by many of these ill-contrived things, shoved up to the chin, making a sort of fleshy shelf dis-

gusting to the beholder, and certainly most incommodious to the bearer, but we also note their announcement to the female world, if not by drum and trumpet, by their conspicuous position in shop-windows by way of advertisement.

Female delicacy, where is thy blush when thou lookest on such exposure of the chaste reserves of thy person! when thou seest the parts and situations of thy person which modesty bids thee conceal, thus dragged before the imagination of the opposite sex! Though nothing disrespectful to modesty is meant by the advertisement, still you cannot certainly approve of its conspicuousness. It is the opinion of the wisest moralists, that, rob woman of her delicate reserves, and you take from her one of the best strongholds of her chastity; you deprive her of her sweet attractive mysteries; you lay open to the eye of love the arcana of her toilet, the infirmities of her nature; the enchantment is broken, and the "bloom of young desire, the purple light of the soul's enthusiasm," expire at the disclosure.

Some women are bold enough to wear this Procrustean garb during every stage of pregnancy, and affirm that it preserves the shape without injury to their state of increase. However this may be with a few hardy individuals, it must, with a very great majority, necessarily put a degree of restraint upon the operations of Nature, that will produce ill effects both on the mother and child. Support and confinement to an overstrained part are two different things; the one is beneficial, the other destructive. Those married women who have longest maintained their virgin forms are those, who, in a state of maternal increase, observed a proper medium between a too relaxed and a too contracted bodice. Nature in these concerns is our best guide; and, when she dictates to us to provide against the possible disagreeable consequences of any of her operations, it is well to obey her. But when a fastidious, and, allow me to say, an indelicate regard to personal charms would excite you to brace with ribs of whalebone the plastic mould of your

unborn infant; or, when it has, in spite of these arts, burst its prison-house alive, you seek to deprive it of the nourishment your breast prepares, then remember that you perform not the duty of a mother, but show yourself, rather, egregiously guilty of wantonness and unpardonable cruelty.

No person living can feel a more lively admiration than that which animates myself at the sight of a beautiful form. I behold in it the work of a most perfect Being, the accomplishment of one of his fairest designs. He seems to show in earthy mould the lovely transcript of the angels in heaven; she looks, she breathes of innocence and sweet unconscious beauty. But when I cast my eyes on women issuing from the house of a manufacturer of shapes, when I see the functions of Nature impeded by bands and ligatures, when I behold the abode of virgin modesty, the tender mother's fountain of aliment for her new-born babe, thrust forward to the gaze of the libertine, and when I observe the pains taken to attact his eye, I turn away — *disgusted.*

Defective Cleanliness. — There are few kinds of filth more offensive than that excreted from the animal body itself; and if, as we have seen, such matters are so injurious when not sufficiently or properly eliminated from the body, it is not surprising that they continue noxious, and become the cause of disease, after being thrown from the system, if proper means be not taken to remove them.

One of the most important means of removing impurities from the skin is the daily use of the tepid bath. This is of most powerful efficacy; and so also the sea bath: this has a great effect on the body by its saline quality, which is stimulating to the skin, causing it to throw off all accidental impurities, and removing cutaneous obstructions.

An intimate friend of Lady Mary Wortley Montague was expostulating with her on the extreme dirtiness of her hands, when she replied, "My hands? ah, if you could only see my feet!"

By the use of the tepid bath, the women of the East render their skins softer than that of the tenderest babes in this climate, and by such means is that health preserved which otherwise the sedentary confinement of their lives must destroy.

Occupation has much to do with the disease under consideration — more especially if it be of a kind that gives but little exercise, or causes excessive bodily exertion, or confines the female to the influence of impure air. One would suppose that women employed in factories, as seamstresses, and the like, would be more predisposed to disease of the menstrual organs than others; that the high temperature maintained in manufacturing establishments, dust, and other impurities with which the atmosphere of the rooms is usually loaded, the short space of time allowed for physical relaxation or mental training, &c., would promote a state of body which would render it pre-eminently susceptible to disease. Statistics, however, according to Dr. *Whitehead*, do not verify such a supposition. They show, that, of those tasting the joys of plenty, those in easy circumstances, the educated female is more predisposed to this disease than any other.

In females of the higher order of society, the approach of puberty is characterized by an unwonted irritability of temper, fretfulness, dejection of spirits, singularity of manner, fits of laughing and crying, dread of evil, disturbed and unrefreshing sleep, palpitations, headache, nausea, loss of appetite, abdominal tumefaction and tenderness, especially low down on each side of the abdomen, aching in the loins, pain in the thighs and limbs, pricking sensations, numbness, a "dead feeling," and cramps in the calves of the legs, &c., giving most evident signs of an engorged and congested state of the menstrual organs. The predisposition in this class of females, according to Dr. *Whitehead*, is twofold. First, *inactivity*. Health rests upon a proper exer-

cise of all parts of the economy. Every part of the body, be it muscle, bone, or nerve, has its use. The muscles were designed for a purpose, and their due employment is necessary to the harmonious working of the economy of which they constitute an important portion: hence inactivity and the non-employment of the muscles is invariably followed by ill consequences. Second, the *faulty system of mental training*. The mental faculties in this class are ordinarily called into premature activity, and tasked to a degree beyond endurance; and the mind is crowded with a mass of matter, under the fictitious denomination of accomplishments, which Nature never designed it should entertain: while the proper training of the physical constitution is totally disregarded. Moreover, the indulgence of a propensity, irresistibly active at this period of life, for reading novels, romances, and works similarly vicious in character, has likewise a very injurious tendency. Witness, for instance, the violent and often dangerous paroxysms of hysteric emotions occasionally consequent upon the mere perusal of an affecting narrative, having probably no foundation save in the over-strained fancy of the reader. These are the agencies to which the unlettered are entire strangers, or which they experience but seldom, and only to a very limited degree.

CLIMATE is another predisposing cause. Women of *warm* and *tropical* regions are undoubtedly more subject to this disease than those of a more temperate climate; not however, as some suppose, because a tropical climate induces undue sexual excitement. The warmth of man's temperament is quite independent of climatorial influences. Our arctic travellers have convinced us, that, in the midst of ice which never thaws, many of the Esquimaux tribes live in a state of licentiousness which cannot be surpassed by that of the sun-burnt natives of India; and it would be difficult to demonstrate that unrestrained indulgence prevails to a greater extent among the ignorant and semi-civilized in-

habitants of tropical regions than among those of our own climate, where civilization — the intention of which is to deliberate upon human happiness, subdue the voice of passion, awaken the love of truth, the fear of evil, and promote a sense of responsibility — has endeavored to restrain those passions which outweigh all others in their effects upon the moral and physical constitution. If civilization has contributed in any material degree towards the mitigation of that species of vice arising from undue excitement of the sexual organs in any single direction, it has contributed very materially, also, towards its propagation in others; the truth of which is seen on every side in the faulty physical, moral, and mental training of the youth of the present day. Where the ignorant and semi-civilized natives of tropical regions experience *one* provocative of sexual passion, civilization, in the multiplicity of its false and fatal notions of physical and mental cultivation, in its ever-increasing complications of social intercourse, nurturing and increasing feelings in man to which he was almost a stranger in rude and barbarous times, has created a *dozen*.

Under the influence of tropical heat, the system becomes enervated, the vital powers debilitated, the tone of the muscular system lessened, and a condition of system induced preeminently susceptible to the influence of morbid stimulus.

The influences of a *temperate* climate, with its sudden transitions from heat to cold, are perhaps equally as provocative of disease as those of a tropical climate. That exposure to variable temperatures and sudden transitions from heat to cold is a most fruitful source of this disease there can be no question. This is more especially true among the higher orders of society, — too much confined within doors by domestic duties, and scarce ever venturing out adequately clothed, and particularly when, on occasions of public exhibitions, the light gossamer draperies of the evening are substituted for the heavier investments of the morning, and, with neck and arms half denuded, and the

feet scarcely more protected, they rush, at late hours of the night, from heated rooms, worn down and exhausted, to plunge into the external air, often cold, damp, and chilly, in a state of the greatest susceptibility to the disease under consideration.

As to the influence of low temperatures, we have but little reliable testimony. It is said that women of Lapland do not reach puberty till the age of eighteen or twenty, and that then the catamenia are not only inconsiderable, but recur at long intervals, and sometimes only during the summer months. We, however, doubt the truth of the statement.

Temperament. — Disease of the menstrual organs is observed in all temperaments, but more commonly in the sanguine and nervous. The distinguishing characteristics of the sanguine are red, auburn, or light hair; blue or brown eyes; florid complexion; and thin soft skin; animal heat high, and pulse full and frequent; body usually well proportioned, head small, neck strong, shoulders broad, chest large, hips solid, and stature tall, with an inclination to corpulency; with which are usually associated an active mind, quick conception, and ready memory, lively and cheerful disposition, and warm and passionate feelings.

Disease of the menstrual organs is perhaps more particularly observable in women where the nervous temperament is predominant and the susceptibility to excitement from external impressions unusually developed, and more especially in those of a scrofulous habit; in girls with long eyelashes and blue eyes, of fine physical formation, with handsome proportions, fair, half-transparent skin, bright ruddy complexions, sleek hair, whether light or dark, dilated pupils, pinched nose, thick upper lip, an active and lively disposition, quick intellect, and precocious understanding.

The scrofulous habit is hereditary, and referable to a multitude of causes, — venereal poison, gluttony, habits of

intemperance, indeed, to whatever has a tendency to debilitate the vital powers, and induce, by long-continued operation, a cachectic state of system. It may be transmitted by either parent or both; and although the parents may never have experienced any symptoms of the infirmity, yet it may nevertheless be found fully developed in their children, even from birth, indicating its presence by an inflammatory thickening and redness of the eyelids, swelling of the cervical glands, &c., and by great delicacy of constitution. In young girls of scrofulous habits, mesenteric deposit or tuberculous peritonitis, complicated with a swollen state of the menstrual organs, and adhesions of the uterine appendages, are not at all uncommon. With this condition of system it is readily to be perceived that the period of puberty will be one of no little danger, and may well be anticipated with much apprehension; for, when the ovaries become aroused by the process of ovulation, diseased action may become awakened in these morbidly-disposed organs that would otherwise have remained dormant, or disappeared entirely through the process of growth and mature development. Or, if this period be passed, what may be the influence of the application of the new and novel stimulus of sexual intercourse to these morbidly-disposed organs, should marriage be consummated! and how imminent would be miscarriage should conception happen to occur! or what might be the consequences if the womb should happen to be bound down by adhesions which preclude the possibility of its expanding!

Among other predisposing causes to this disease may be mentioned any circumstance that has the power of lowering the vital powers and producing a weakened condition of the body,—attacks of acute disease, miasmatic poisons, eruptive disorders, depressing mental excitement, exhausting diet, profuse loss of blood at the menstrual period, pernicious habits and practices, &c.

EXCITING CAUSES.

The exciting causes of inflammation of the menstrual organs have been by most medical writers ascribed to accidents, such as blows, or falls on the feet, knees, or sacrum, to horseback riding, or long and fatiguing walks during or immediately after the menstrual period, to great muscular effort, &c. There are, however, exciting causes of far greater frequency than any of these, and certainly of very much greater importance; and it is well that we should understand them. The first that will occupy our attention, and which are by far the most frequent and most important, are, —

MENTAL EMOTIONS. — So intimately connected as is the body with the mind, it is not surprising that whatever affects one affects both.

Mental emotions are capable of producing not only *functional* disturbances, but *organic* changes. Sudden mental perturbation, fright, joy, &c., cause irregular action and palpitation of the heart, which organ is remarkably susceptible to strong mental emotions. This susceptibility is also observed in other parts of the body. The alimentary and menstrual organs, and the natural orifices of the body, such as the throat, the anus, and the neck of the bladder, are especially affected.

The controlling power of the emotions over the NERVES is seen when the aching tooth suddenly subsides through terror caused by preparations made for its extraction: the emotion of fear renders the nerve insensible to the irritation of the atmospheric air, or to the irritation of fragments of food.

The controlling power of the emotions over the MUSCLES is familiar to all, as, for example, the influence of grief, joy, &c., over the muscles of the face, as seen in the thousand varied expressions of the countenance; the contraction of the arms and limbs when one surrenders himself up to the

impulse of passion; and as is seen also in the conduct of irritable persons, who pace up and down the room when in a fit of passion. Fear and rage make the heart beat violently, make one gasp for breath, producing a choking sensation in the throat, and take away the voice. Their power over the muscles of respiration is also familiar. It is witnessed in the deep inspiration which precedes a sigh or an expression of surprise.

Over the SECRETIONS their controlling power is also seen. The flow of tears from anger, joy, or grief, the flow of urine through fright, are familiar examples. Every physician well knows how grief, or a fit of anger, may so change the nurse's milk as to render it totally unfit for nourishment, which causes, not unfrequently, attacks of diarrhœa in the child.

Emotions of the mind produce changes also in BLOOD-VESSELS, as is seen by their influence over the capillary blood-vessels of the face in the blush of shame or anger, and the pallor of fear or hatred.

They produce changes also in GLANDS. In maternal emotions, the blood is directed to the breasts, and induces a state of congestion and erection of the nipples. In sexual excitement, the blood is directed to the ovaries of the female and testes of the male, inducing a state of turgescence in the clitoris and in the male sexual organ.

Thus we see that emotions of the mind are capable of producing changes in *nerve*, *muscular fibre*, and *blood-vessels;* and they are, when of a strong and cumulative character, sufficient of themselves to so work a change in the circulation or nutrition of a part *as to excite in that part inflammatory action.*

Mental emotions affect those organs that are connected with the upper or inter-cranial portion of the spinal cord. These organs are the eyes, face, neck, the thoracic viscera, and stomach. The motor nerves of these organs are in connection with the inter-cranial portion of the spinal cord

or the *medulla oblongata.* The lower animals express their emotions by the eyes, ears, and neck. Grinning in the dog denotes rage; in the horse, amiability.

Mental emotions, however, more *particularly affect organs* that are connected with the lower portion of the spinal cord, —the kidneys, bladder, rectum, and more especially the sexual organs. The lower animals express emotions by the caudal extremity. The dog wags his tail from delight; the lion lashes his from rage. The erected tail of the cat expresses fear; of the dog, confidence and courage. *Cabanis* gives an instance of the effect of jealousy producing priapism. Many experience paralysis of the bladder when they attempt to pass urine in the presence of others. Fear causes the urine to flow, and "sudden defecation as a consequence of terror does not much improve the position of a naughty school-boy." Mental agitation sometimes excites spasmodic stricture of the urethra. Suspense or anxiety will check uterine action. Sexual emotions affect the ovaries and clitoris in the female, and the testes and the organ of intromission in the male.

We now see how mental emotions may affect the sexual system. The menstrual organs are especially susceptible to the influence of excitement of the passions, and their disorders are OFTENER TRACEABLE TO THIS SOURCE THAN TO ANY OTHER.

The most common emotion in the female sex is terror, but the most violent is the *erotic passion;* and when it manifests its gigantic power in its exaggerated intensity, sending the heated blood in burning course through the veins, lashing into fury the entire community of organs, and driving from the conscience of woman the last vestige of worship, honor, respect, love, modesty, purity, and from her cheek the faculty to blush, how can it be other than the most powerful agent in all the commotions of her system?

When the erotic passion is experienced in any strong degree, and is of a continuous and cumulative character,

and cannot be tranquillized, and its force discharged or expended by its natural and legitimate satisfaction, as in those unmarried and chaste, its deleterious effects are made manifest through an exaltation of the vascular and nervous condition of the sensitive ovaries, which is especially prone to terminate in an inflammatory state, for the reason that the susceptibility of the ovaries to take on diseased action is very much increased by the monthly process of ovulation, which process, as we have already seen, is in itself "*almost* a disease."

The ovaries in erotic passion sustain the full shock of the commotion. If of a continuous and cumulative character, their nerves become highly exalted. Increased capillary action ensues, and blood is summoned to the organs in increased quantity, and retained in them. The ovaries become swollen and highly sensitive. Congestion and inflammation supervene, and the diseased organs transmit morbid influences which may seriously affect the entire body.

Touching the capability of mental emotions to produce not only *functional* disturbances, but *organic* changes, *Robert B. Carter* of London says, "Emotion is a force adequate to the production of very serious disorders in the human frame, acting upon the muscular, vascular, and secreting organs, and causing various derangements both of their structure and functions; the proclivity to this influence being greatly increased by the operation of all debilitating agents, whether local or general, and by all circumstances tending to make individual parts the subjects of attention." He also adds that "these derangements are much more common in the female than in the male; woman not only being more prone to emotions, but also more frequently under the necessity of endeavoring to conceal them."

One of the most frequent provocatives of passional emotions in the young female is to be found in the fascinating and exciting pleasures of the festive gathering.

We know, that, with the mass, *dancing* is regarded with particular complacency. We are told that it carries with it a banquet alike for taste and feeling; that all nations have deemed it a salubrious, decorous, and beautiful exercise, or rather happy pastime and celebration of festivity; that gay countenances are seen, and hilarity in every step, and delightful converse communicated; that it is the pastime of Nature; that we find it in courts, and meet with it on the village green; that in days of yore, in the most polite eras of Greece and Rome, and of the chivalrous ages, it was a favorite amusement with the first ranks of men; that kings and heroes and unbearded youth alike mingled in the graceful exercise. We know all this: we know, too, that it *may* be a beautiful exercise, and perhaps an innocent, rational, and elegant amusement of youth. But — note the orgies of a ball-room. View the yet ingenuous maiden successively the property of every man in the room. View her with arms mutually intwined, bosom to bosom, heart to heart, and the facilities thus presented for personal contamination. View the blaze of light that enchants, confounds, bewilders her senses; the exhilarating sounds of music; the dazzling novelty; the glittering of jewels; the perfumes which spread abroad their rich odors; the mirrors reflecting a thousand flaming lights; the general joy that thrills through her frame; the heated blood that flows in burning course through her veins; the pride of excellence in the display of graceful attitudes, in the rapidity of motion, in the accuracy of step; the natural vanity of emulation; the exultation of humbling a rival; the applause of contending adorers. What are all these but morbid excitants? Where is the barrier that can oppose the influence of morbid stimulus when the susceptibilities of the skin and mucous membranes are increased to their utmost, and the nervous system and sexual organs aroused by such prurient incitations? But this is not all. With heart and mind thus prepared,

what ravages may not the passions commit! The smooth, guileful tongue of seduction, which employs the purest and most burning language, the most ingenious fascinations, and which soothes and cradles into a slumber of visions like the intoxicating perfumes of opium, may prevail at such a moment; or if virtue still make a stand, yet how may its power be insulted, or be weakened by the open attacks of the profligate, — by him who seizes the opportunity of closest contact to communicate infection that may spread with fearful rapidity! How futile the declaration which would persuade that the ball-room is a place of innocent relaxation, pleasure, and healthful exercise! False, fatal notions of mental and physical cultivation! Actions from which the modest female would shrink alarmed in any other place are here tolerated, are necessary. The timid eye of chastity is closed, and all the meek reserve of virgin purity lost. The eyes are panders to the soul, and every sense is excited. Intemperate wishes fill the bosom, and excited thoughts take possession of the mind. There is nothing in them, perhaps, sufficiently criminal to alarm the conscience, nor is there enough to *satisfy the morbid curiosity that has been aroused*, — a curiosity vast in its energies, conquering judgment, and, like a deceitful light upon a rocky coast to lure some night-wildered vessel to destruction, hurrying on its victim until she stands on a verge whose awful height is hidden from her view by the thick mist of passion that surrounds her. There may be a consciousness of wrong; but there is also *energy of the senses*, — an energy which is of no transient nature, but cumulative in character. A strange and hitherto unknown feeling thrills through her frame. The heart swells and beats tumultuously. Her breathings are accelerated, voice tremulous, face flushed; and her eyes, trembling in suffusion, betray what her heart labors to conceal. She has imbibed the poison which now infects her senses. It has eaten its way, has penetrated into the innermost recesses, like a corrosive

menstruum, whose impressions she will never be able to efface. Never before has her heart throbbed; never has a blush risen to her cheek; never has her eye veiled itself; and never before has she tried to fly from an overpowering thought. Her heart, hitherto so pure, has become tarnished. Passion circulates through her veins, beats in her heart, and consumes her. It is her master. It carries the day: honor, respect, love, modesty, every thing, holds its tongue; for passion is speaking. Intoxicated, frenzied, fascinated, madly in love, her reason is lost amidst the transports of desire, against which the utmost strength of human nature becomes utterly powerless. Reason is limited; and no understanding can command itself at all times and upon all occasions. The senses, enchanted and bewildered, are wrought up to the highest pitch of delirious ecstasy. *The voice of Nature is speaking within her:* how long will she escape immolation upon the altar of desire? *That imperious instinct implanted within her by the divine Framer has become aroused:* how long will she triumph over herself? If she succumbs, how will she resist after her fall? How will she be able to withstand the power of impulses triumphing over her weakness, and armed with the dangerous weapons of past pleasures? Nature never sleeps, and always labors to carry its point, that desire may be satisfied, the mind tranquillized, and the regular action of vital organs restored. "Appetite is a part of our substance. Virtue is only a piece of inlaid work, which requires an equal temperature to prevent it from warping."

Nature has given to all a certain quota of passion. Desire is a law of Nature, — a great principle implanted deeply within the constitution as a guaranty for the perpetuation of the species upon the surface of the earth. To destroy the passions would be annihilation They can, though, be regulated. The accomplishment of this task with the many is admissible; with a few, it is a question whether they possess the power. Children born o` parents with dis-

ordered amativeness inherit passional activities and organic excitabilities. In them passion is augmented. It manifests its gigantic power in exaggerated intensity; and fierce will be the struggle of desire when its fires are once lighted.

Fortunate, indeed, are they, who, notwithstanding the might and dominion of the aphrodisiac power, have that elevation of mind, that peaceful consciousness of the presence of virtue, which curbs all passion whilst it bays all temptation; who, though lashed into fury by the intensity of passion, have yet the power of governing their own actions If their struggle be painful, so, too, will their triumph be glorious. Modesty, that most charming of attributes, directs and governs them. Their honor, respect, delicacy, religion, and their duty to themselves, remain intact. They deposit in no one's hands the whole happiness of their life. They intrust no one with their honor and their repose, and they render no one the absolute sovereign of their destiny. There is no sacrifice of duty, of fears, or of pride. Possessing the substance as well as the show of virtue, they retain not only their own respect towards themselves, but augment the esteem, and confirm and render more permanent the love, of him they would not lose. They experience no faithlessness, suffer from no indifference, coldness, or inconstancy. They can husband their affections, and calmly canvass in what manner man's love should be managed to make it lasting. They parcel out their fondness, but do not heap it upon him to leave a cloyed satiety upon the mind. They keep in reserve stores of novelty yet unexhausted, and gratifications yet untasted. They manage man's affection with judgment, moderate their own with discretion, and maintain their sway without exposing or abusing it. Coyness never created inconstancy; but passion lessens by use. Man enjoys that which is before him; but, when nothing more is possible, all that is attained is insipid. Such is the nature of man, that ingratitude is the reward of woman's favors. Eager in pursuit, but luke-

warm in possession; curiosity excites, desire impels, and hope sustains him. He is never satisfied till possession is absolute, easy, and uninterrupted. Compliance, though, engenders indifference, and renders the most bewitching charms of no effect. Possession weakens, nay, frequently extinguishes, the fondest, the most tender passion. Nought has been left him to desire. Nothing has been reserved to amuse expectations. Curiosity is satisfied. The enchantment is broken; and "the bloom of young desire, the purple light of the soul's enthusiasm," languishes, expires. Apathy succeeds passion. Disgust pursues desire. Woman's empire lost is never regained.

"She sets, like stars which fall, to rise no more."

Anxieties and cares are but the purchase of pleasure.

Let woman recognize the force of this philosophy, and she is safe. She will be insensible to flattery, deaf to the voice of adulation, and undeceived by fair speeches. Doubts will never be removed, fears will never be dissipated, nor will resistance ever grow faint. If she would retain him who was at first a captive to her charms, let her leave him always something to desire; recollecting that no charms, however seductive, can continue to transport with delight when they no longer stimulate curiosity or desire. The last draught of pleasure taken, with nothing left to sparkle in the cup, impetuous vivacity and ardor give way to apathy and indifference. Politeness lessens, and civilities cease. Selfishness demanded all, and nought is left which can renovate the power of charming. With the stores of novelty exhausted, every gratification tasted, and curiosity satisfied, ingratitude turns away in cloyed satiety to seek either new conquests, or a more stable fidelity where felicity and honor can be more *safely* reposed. Disappointment and mortification follow complacency. Selfishness and brutality turn away from their instrument of pleasure when possession is consummated at the expense of truth, honor,

and happiness; and innocence, betrayed by delusion, sinks into the grave in ignominy or frantic wretchedness.

Unfortunate, indeed, are they who inherit passsional activities and organic excitabilities which hurry them down the stream of pleasure to swift destruction. With the emotions animated, the warmth enkindled, the senses awakened, the mind inflamed, and the desires excited, conflict will not be declined, and the citadel must fall under proper generalship It requires but a master's hand. Nature demands. Reason is limited.

Who shall say that the festive assembly, with its fetid, suffocating atmosphere, loaded with disease reeking from a thousand lungs; that protracted vigils sacrificed at the shrine of folly, luxury, and fashion; that heated imaginations, intemperate wishes, excited thoughts, which enchant the senses, with the following morning's clouded spirits and haggard looks, with the mind dejected with recollections of the last night's follies, and body enervated by its excesses, —who shall say that these foster healthy looks, cheerful mien, contented and healthful minds, and hardy and vigorous frames, the only foundation upon which we can expect to erect a superstructure beautiful in all its detail and proportion? Does Nature second the idea? Can the constitution long bear the fatigues of such excitements? Who shall say (*and this brings us to the practical point*) that there is in these no morbid stimulus to the disease under consideration? What part of the economy can be more affected? Each emotion has its own distinct action upon the system. As we have already seen, the blood in erotic excitement is directed to the sexual system; and when it is experienced in any strong degree, and is of a continuous and cumulative character, and cannot be tranquillized and its force discharged or expended by its natural and legitimate satisfaction, as in those unmarried and chaste, it has the effect of inducing an exaltation of the vascular and nervous condition of the ovaries, which condition ordi-

narily terminates, or is exceedingly prone to terminate, in inflammation. Of what incalculable importance, then, since it is almost a moral certainty that subsequent disease will supervene from these morbid impressions stamped on these highly sensitive organs, that heed should be given to such and similar causes, which tend only to light up a disease that will soon sooner or later enervate, weaken, and exhaust the powers of life, and render woman the victim of a multiciplicity of mental, moral, and physical sufferings that may attend her to the grave!

Parents, guardians, mothers, you have seen the effects, but you have been totally unconscious of the cause. To acquaint you with these causes, we have undertaken the arduous, and, to us, awkward task.

To every mother we would address ourself. We would conjure you to mark well, how, in this age, the physical being is comparatively neglected, its wants made subservient to false and fatal notions of mental cultivation, or forgotten amid the fascinating pleasures of sensual existence. Disease, often generated in early life by a vicious physical education, entails years of mental, moral, and physical suffering. With you there rests responsibility. You have an arduous task before you, of not only seeing that the physical constitution receives that attention and consideration which are so much demanded, but which, alas! are so much neglected, but also in bending and shaping the youthful mind of your daughter. Let the dictates of wisdom continually flow from your lips, or the voice of her nature will prove stronger than yours. Your perpetual vigilance is demanded to check the opening roots of vice and error, to exterminate them, to plant in their place a growth of surer omen, of lovelier aspect. You may well tremble as she approaches the confines of society, — that world of which we entertain such glittering ideas, but which is, when one sees it closer, false, gloomy, and malicious; and you may well proceed with fearful caution in the road that leads her

to the knowledge of life and its thousand snares, discrepancies, pains, and sufferings. The hope of your declining years depends on how you fulfil this arduous task. Her own prosperity, health, and happiness rest upon it; and according to your effort and success is she to prove a living stream of comfort and delight, possessing healthy looks, a contented and healthful mind, and a hardy and vigorous frame, enabling her to fulfil the great purposes of her existence; or she is to roll through the road of life a poor, unsubstantial shadow, trembling at the slightest breeze of accident, and the victim of a thousand ills to which her tenement is subject. Ask you a guidance for the management of youth? We append a few hints here, and more hereafter.

Let the Mind be occupied. — Let the young woman learn to render herself capable of occupying her mind with objects worthy of attention. Let her busy herself in securing those attainments necessary to a proud and enviable intellectual standing in society. Let her mind be *filled* with the study of arithmetic, grammar, geography, history, natural philosophy, the various branches of natural history, and with whatever employs the exercise of the memory. It shuts out thoughts which it is desirable to avoid. Let there be within the pale of her acquisitions, music, poetry, painting, and the fine arts. Let her perfect herself in the study of the languages, in reading books of genius, in the improvement and exercise of her many accomplishments. Let her learn the art of managing a house: its influence on human happiness has seldom been properly portrayed. Among the dignities of physics and metaphysics, writers have forgotten it. Socrates and Xenophon set them the example: few, however, have followed their meritorious exertions; and ignorance and vanity have been left to consume valuable time in the acquisition of things confessedly of no use, while that knowledge which contributes greatly to the prosperity and happiness of man has been wholly excluded, or regarded

as a matter of secondary importance. Knowledge which domestic life demands has given way to fashionable levities, utility to accomplishments; and those acquisitions necessary to the prudent management of domestic concerns are forgotten amid the multiplicity of ornamental absurdities. Domestic prudence and discreet economy are things unknown, and not thought of; and bankruptcy, ruin, and disgrace follow closely on the heels of abundant affluence and exalted stations. *All occupations which employ the mind are so many countermines to temptation.* They dissipate the passions; they lay hold of the attention, and fix it; they turn aside the thoughts from ideas too alluring. *Ennui* is woman's greatest enemy: it is her destroyer. It powerfully awakens imagination and increases sensibility. It fosters the emotions and languishings of love, and renders her an easy prey to the despoiler's art.

ACTIVE EXERCISE is also demanded: it is a powerful diversion of the thoughts from improper channels. Indolence engenders sexual congestion, and increases sensibility. Exercise calls the blood to the muscles and organs of motion, develops vigorous bodies, and retards puberty. It dissipates sexual congestion, and decreases sensibility. Its value as a temperer of the passions was well known to the ancients: their poets tell us that Diana, the daughter of Jupiter, obtaining permission from her father to live in perpetual celibacy, withdrew herself to the hills and the woods, that she might shun the society of men, and escape provocatives of desire. That she might also extinguish woman's predominant characteristic, sensibility, she devoted herself to the excessive bodily exercise and fatigue of hunting. From this we are taught that active exercise among the hills and woods is a preservative of chastity, and that idleness and great cities are enemies to virtue.

Jupiter permitted Diana to take with her, as attendants, eighty nymphs, all of whom, like herself, abjured the use of marriage. Among the number was the young and beau-

tiful Calisto, daughter of Lycaon, king of Arcadia; but who, once falling asleep, was surprised by her seducer, and forced to capitulate. Calisto preserved her integrity whilst she was employed; but, giving herself to rest and sleep, lost it. Exércise is a preserver of modesty; fatigue dissipates erotic sensibility; idléness is the mother of wantonness.

Atalanta was another attendant on Diana, and so swift in running, that no man could match her. She was the first to overtake and wound the Caledonian boar. Her beauty gained her many admirers, and she was importuned of men. She at length listens to them, and leaves Diana, the hills and woods; gives up the chase, exercise, and employment; and is finally overcome by Hippomenes, in Cybele's temple.

Ægisthus, king of Argos, being asked the cause of his adultery with Clytemnestra, Agamemnon's wife, answers, *that he was idle*, — "desidiosus erat."

Prurient Books, Passion-stirring Pictures, Paintings, Statues, &c., are highly dangerous. They provoke flights of vivid fancy, and arouse impulses of desire, and yearnings after unknown gratifications. The *eyes* are the windows of the soul; through them sensibility becomes exaggerated and judgment conquered. While King David was walking on the housetop, in the city of Jerusalem, he espied Bathsheba, the wife of Uriah, bathing. The eye saw, and the energy of the senses became aroused; the beauty of her figure inflamed, and passion consumed him. Intoxicated and lashed into fury by the intensity of internal movements, his reason became lost amidst the transports of desire; he demanded a surrender of the citadel, and it fell under a king's eloquence (2 Sam. ii. 2, &c.).

When King Abimelech saw Sarah, Abraham's wife, passion was enkindled, and the voice of God only restrained him from doing violence (Gen. xx. 2, &c.).

When Helen looked upon Paris, desire roused her from

supineness, and she confessed she was ravished with admiration at the beauty of his countenance, and that she could not be satisfied with gazing on him.

Job made a covenant with his eyes (Job xxxi. 1), and prayed God, as David did, "Turn away mine eyes from beholding vanity" (Ps. cxix. 37).

Look well to her Associates. — A frail companion is a mortal poison to the best constituted heart. Vice loves company; and a woman who has once succumbed thinks to screen herself, in a measure, by leading others into the same snare. Novices are her victims; stealthily she approaches, and ingeniously and cunningly wends her way to the heart. She looks deep into it; she discovers there a curiosity vast in its energies. She sees, also, exaggerated conjectures and sentiments; intimacy is formed, mutual confidences are reposed, and secret thoughts interchanged. Interested in bringing her to the same level with herself, her generosity in disclosing to youthful imagination most absurd exaggerations is commensurate with the attention that she succeeds in fixing. With a smooth, guileful tongue, she pictures visions of felicity which no human power can bestow. She arouses a morbid curiosity which provokes flights of vivid fancy, and vitiates youthful imagination. But for Venus, her own sister Helen would never have engaged in an affair of gallantry with Paris, king of Troy. Venus had succumbed to Mars, and, wishing to bring her sister to her own level, inflamed Helen's imagination with exaggerated pictures of felicity, and led her to break faith with integrity. Indulgence, though, never gives the pleasure it promises. Helen experienced the truth of this, and in sorrow and in contrition returned to wisdom's ways. Love in itself, already too alluring, obtains new vigor by contagion, and danger is imminent. But if the barriers raised up by modesty are not easily surmounted, and virtue still makes a stand, what ravages may not the passions commit on the sensitive ovaries which sustain the full shock of the commo-

tion! We repeat, *Look well to her associates;* turn away *her eyes from beholding vanity;* let there be due *exercise* on foot, even to fatigue, if sensibility be great; *let the mind be occupied.* If it be not employed, the senses will.

Early Marriage is another exciting cause of this disease. In newly-married women, inflammation of the menstrual organs sometimes occurs as the effect of the new and novel stimulus, — sexual intercourse. The first exercise of this faculty causes some remarkable changes in women.

Habitual indulgence of an inordinate use of this stimulus also engenders disease. Its effects are similar to those of abstinence. It causes weakness, nervous irritability, loss of appetite, impaired digestion, hypochondria, and mental irresolution and enfeeblement. It debilitates the vital powers, impoverishes the blood, induces decay and loss of the enduring tone of the muscular and other solid tissues of the body, over-excites the nervous and sexual systems, and induces general nervousness, faintness, languor, and disease of the ovaries. In man, it induces a weakness of the genital organs, and establishes involuntary seminal discharges, which reduce the patient to the last degree of wretchedness. It effeminates the mind, impairs the power of thought, and unstrings the nerves. Women lose their beauty and force of character. Their sight and hearing also sometimes gradually fail. The eyes become weak, and unable to endure the light, and the ears affected with buzzing and other unnatural sensations. The brain, also, sometimes becomes affected, memory and the faculty of thinking become impaired, and sometimes a state of stupidity and mental degradation ensues.

That we may clearly see how the most deleterious effects may arise from ill-regulated desires and extravagant indulgences in an act that is accompanied by a universal excitement of the whole body, terminating in a kind of slight convulsive, comatose, and ecstatic state, it is neces-

sary that we understand in what the act of copulation consists. It is thus described by *Carpenter*: —

"When impelled by sexual excitement, the male seeks intercourse with the female: the erectile tissue of the genital organs becomes turgid with blood, and the surface acquires a much increased sensibility. This is especially acute in the glans penis. By the friction of the glans against the rugose walls of the vagina, the excitement is increased; and the impression which is thus produced at last becomes so strong, that it calls forth, through the medium of the spinal cord, a reflex contraction of the muscular fibres of the vasa deferentia and of the muscles which surround the vesiculæ seminales and prostate gland. These receptacles discharge their contents into the urethra, from which they are expelled with some degree of force, and with a kind of convulsive action, by its compressor muscles."

The physiological explanation of the pleasure attendant on the sexual act is explained by *Kobelt* as follows: "Accumulation of blood causes, whenever it occurs in the body, a gradual augmentation of sensibility; but in this case the glans penis, in passing from a non-erect state to the condition of complete turgescence, becomes the seat of a completely new and *specific sensibility*, up to this moment dormant. All the attendant phenomena re-act on the nervous centres. From this it appears, that in addition to the nerves of general sensibility, which fulfil their functions in a state of repose, and also during erection, although in a different manner, there must be in the glans penis *special nerves of pleasure*, the particular action of which does not take place, except under the indispensable condition of a state of orgasm of the glands. Moreover, the orgasm once over, the nerves return to their former state of inaction, and remain unaffected under all ulterior excitement. They are then in the same condition as the rest of the generative apparatus: their irritability ceases with the consummation of the act; and, together with this irritability, the venereal

appetite ceases also, to be repeated, and to bring about the same series of phenomena, at each new excitation."

During the act of copulation, the elastic contraction of the vulva closes tightly on the penis, which, with the clitoris, is supplied with highly sensitive nerves. By friction of the glans penis against the latter and the rugose walls of the vagina, excitement is increased; and the senses, enchanted and bewildered, are wrought up to the highest pitch of delirious ecstasy, followed, however, at the moment of ejaculation, by slight muscular spasms, and terminating with feelings of languor and fatigue.

"Coition," says *Ryan*, "has been compared to a fit of epilepsy, to an electrical shock: it entirely engages the mind and the body; we neither hear nor see; the soul is absorbed in love; and some persons have lost their lives in this crisis. It is for this reason that sexual intercourse has proved mortal after severe wounds, hemorrhages, &c.; and, when too often repeated, injures the economy. . . . The abuse of enjoyment enervates the body, destroys the memory, extinguishes the imagination, degrades the soul, and renders us stupid. Thus, idiots, who abuse this function, are excessively lascivious; and eunuchs are remarkably deficient in genius: they want the organs which are destined to secrete the semen, and this plunges the mind as well as the body into a languor and debility almost infantine. It has also been observed that mental exaltation and madness do not manifest themselves before the age of puberty, nor in old age, but in adult age especially, by the retention of the sperm, or ovarian fluid; and hence castration and pregnancy have radically cured maniacs."

Touching this matter, *Acton* remarks, "From the risks which animals will run to enjoy the gratification, and the recklessness with which even the wildest male will approach the tame female when in heat, it would seem that no pleasure is equal to this.

There is every reason to believe that it is the mere and

simple action of emission which gives the pleasurable sensations in animals which (like many birds) have no intromittent organ. This pleasurable sensation, however, is of momentary duration; like a battery, it exhausts itself in a shock. Such, however, is the intensity of the nervous excitement while it lasts, that it is well for human nature it is momentary, or much more mischief would probably result from repeated acts than ordinarily happens. . . . Even in the healthiest and strongest person, a feeling of fatigue immediately follows."

This nervous orgasm is very powerfully exhibited in some animals. The buck rabbit, for instance, after each sexual act, falls on his side, the whites of his eyes turn up, and his hind legs are spasmodically agitated. The causes of this and the corresponding phenomena in other animals is the nervous shock which particularly affects the spinal cord.

The way in which this shock affects a healthy man is, generally, to make him languid and drowsy for a time.

This temporary depression has not escaped the observation of the ancients, who have remarked, "Laeta veniere Venus tristis abire solet;" and again, "Post coitum omne animal triste, nisi gallus qui cantat." So serious, indeed, is the paroxysm of the nervous system produced by the sexual spasm, that its immediate effect is always attended with danger; and men have died in the act, just as insects perish so soon as the fecundating office has been performed. Every now and then we learn that men are found dead on the night of their wedding; and it is not so very uncommon to hear of inquests on men found dead in houses of ill-fame without any marks of ill-usage or poison. The cause has been, doubtless, the sudden nervous shock overpowering a feeble or diseased frame. However exceptional these cases are, they are warnings, and should serve to show that the act which *may* destroy the weak should not be tampered with even by the strong. . . . There are some men in whom a sort of epileptiform orgasm takes place every time con-

nection is indulged in. Napoleon I. is said to have been subject to epilepsy, when, relaxing from his great labors, he indulged in sexual intercourse. No doubt can exist that deaths which have occurred in houses of evil repute, as well as on the marriage couch, have arisen from this cause acting upon highly susceptible organizations. Entomological works abound with cases in which the male dies after the act of copulation. The following, which reads almost like a romance, may be explained, perhaps, by this epileptiform attack killing the male insect. It is a brief history of the establishment and growth of a colony of termite ants, as related by *Burmeister.*

"At the termination of the hot season, the young males and females quit the nest, and appear upon the surface of the earth, where they swarm in innumerable hosts, and pair. The busied workers then convey a chosen male and female back into the dwelling, and imprison them in the central royal cell, the entrances to which they decrease and guard. Through these apertures the imprisoned pair receive the nutriment they require. *The male now, as among all other insects, speedily dies after the impregnation of the female has been effected;* but the female from this period begins to swell enormously, from the development of her countless eggs: and, by the time she is ready to commence laying, her abdomen is about fifteen hundred or two thousand times larger than all the rest of her body."

Of course, such epileptic attack is only the rare exception. In a young, healthy, fully-developed adult, the shock which the nervous system receives is recovered from immediately. Ejaculation is in him a healthy function, from which he rallies directly; and the act may be repeated, in some men, at inconceivably short intervals. In other instances, however, the act is followed by intense depression; and it is a day or two before the system rallies. In such instances, I believe, it will generally be found that the frame has been shaken by great excesses, and then each act of insemination produces effects far different from their natural ones.

M. Parise has truly remarked, that "if the pleasurable moments, as well as the torments, which attend love, lasted, there would be no human force capable of supporting them, unless our actual condition were changed." And *Acton* tells us, that "a kind of natural safeguard is provided against the nervous exhaustion consequent on such tremendous excitement by the rapid diminution of the sensation during successive acts of copulation. Indeed, in persons who repeat coitus frequently during the same night, the pleasurable sensation will diminish so rapidly, that the act at last will not be attended with any. This pleasure, in fact, seems in its own way to be subject to the same laws which apply to our other gratifications."

Parise also says, that the "semen is life itself under a fluid form, — the vital principle, condensed and perceptible. . . . Its importance is demonstrated by the fact that the smallest quantity contains life and activity, and can communicate it; that its presence and its secretion impress the organization with an extra quantity of force and energy, whereas repeated loss of it enervates and rapidly wears out the body. Nothing costs the economy so much as the production of semen, and its forced ejaculation. It has been calculated that an ounce of semen was equivalent to forty ounces of blood, or *ten ounces of blood to each ejaculation;* it being estimated that a healthy man ejaculates some two drachms or a quarter of an ounce." According to *Bichat,* the secretion of sperm is in an inverse proportion to the secretion of fat; and we at once see the reason: semen is the essence of the whole individual. Hence *Fernel* has said "'totus homo semen est.' It is the balm of life, — one of its best and most powerful stimulants."

Carpenter tells us, that "feelings of pleasure or pain are connected with particular sensations, which cannot (for the most part, at least) be explained upon any other principle than that of the necessary association of those feelings, by an original law of our nature, with the sensation in

question. As a general rule, it may be stated that the *violent* excitement of *any* sensation is disagreeable, even when the same sensation, in a moderate degree, may be the source of extreme pleasure." To which *Acton* remarks, "By this merciful provision, Nature herself dictates that excesses must not be committed. The frequent complaint heard from persons who have committed excesses, that they experience no more pleasure in the act, is the best evidence we can have that Nature's laws have been infringed."

Touching the EFFECTS of excess, *Acton* remarks, "None, perhaps, but medical men, can know at all (and they can know but a fraction) of the misery and suffering caused by ill-regulated desires and extravagant indulgences among married people. . . . Too frequent emissions of the life-giving fluid, and too frequent sexual excitement of the nervous system is, as we have seen, in itself most destructive. Whether it occurs in married or unmarried people, has little, if any thing, to do with the result. The married man who thinks, that, because he is a married man, he can commit no excess, however often the act of sexual congress is repeated, will suffer as certainly and as seriously as the debauchee, who acts on the same principle in his indulgences; perhaps more certainly, from his ignorance, and from his not taking those precautions, and following those rules, which a career of vice is apt to teach a man. Many a man has, until he married, lived a most continent life: so has his wife. But, as soon as they are wedded, intercourse is indulged in night after night, neither party having any idea that this is an excess which the system of neither can bear, and which, to the man, at least, is simple ruin. The practice is continued till health is impaired, sometimes permanently; and, when a patient is at last obliged to seek medical advice, he is thunderstruck at learning that his sufferings arise from such a cause as this. People often appear to think that connection may be repeated just as frequently, and almost as often, as meals may. Till

they are told, the idea never enters their heads that they have been guilty of great and almost criminal excess; nor is this to be wondered at, as such a cause of disease *is seldom hinted at by the medical man they consult.*"

Excess not only compromises the menstrual organs, disturbing the catamenia, but involves other of the reproductive organs. Inflammation and ulceration of the cervix uteri, and congestion and inflammation of the vagina, are both frequent and common, and are frequently followed by hemorrhages, leucorrhœa, &c.; and from the bond of sympathy which exists between the ovaries, the womb, and the mammary glands, the breasts often become involved in the general disturbance, and exhibit points of hardness or induration.

These diseased symptoms are more especially observable in women in whom voluptuousness predominates. In women of calmer temperaments, whose placid features announce a gentler and more passive love, marriage very generally adds to the force of their physical charms; but in the impassioned, freshness disappears, and flaccidity succeeds to elasticity. How striking, oftentimes, is the change in her *appearance* in a few short months! Recall the gay-lit countenance, the ruddy and prominent cheek, the sparkling and lively eye, the plump and well-filled neck. Compare her then and now,—how great the change! The lustre of her eye has become dimmed; the feet that were small, even to a fault, puffy; the ankles that were so beautifully turned, swollen and ill shaped; the hands that might have been the envy of a queen, thin and bony; the neck that once was so plump and so well filled, a bundle of cords; lips once so vermilion and full, pale, thin, and livid; teeth that were as white as pearls, yellow and dingy; and voice that once touched chords that oscillated the very heart, broken and husky. The glory of that beauty which once fascinated the beholder has departed; decayed health and spirits are all that is left to her. The great purposes of her

existence (the ends of marriage) are thwarted. She is a victim of sterility from disease of the menstrual organs. She cultivates a barren soil that will produce, with all her tilth, no harvest; for what good purpose can it serve to water the leaves when the plant is decayed, and withered at the root? This is more especially the sequel of the culpable and inordinate exercise of intercourse, as seen in women in every respect unfortunate. The menstrual organs of females sold to vice are seldom without some morbid lesion.

It has been already observed, that "if the pleasurable moments, as well as the torments, which attend love, lasted, there would be no human force capable of supporting them;" and it is well, that, in the human being, the act should last but a short time,—some few minutes. As regards the DURATION OF THE ACT, we find every degree of constitutional difference, not only among human beings but among animals. In man, erection lasts but a short time. The greatest difference, however, is observed in this particular: with some, consummation of the act takes place in a few minutes; while with others ejaculation can be deferred for hours, very much, however, to their serious injury. Among animals, great difference is observed: we are told that "the coitus in the kangaroo, and, probably, in other marsupials, is of long duration; and the scrotum, during that act, disappears, and seems to be partially inverted during the forcible retraction of the testes against the marsupial bones." The act of copulation in the moth of the silk-worm is also of long duration. "The male is the smaller and darker of the two, and as soon as he leaves the aurelia, or grub state, he is ready for the act; he then vibrates his wings with a very singular, humming noise, and goes round and round the female; the tails are then approximated: copulation takes place, and lasts for days. As soon as the sexes separate, the same process is repeated, and sexual congress again occurs. It would almost seem as if the short life of these insects was passed in copulation.

The female moths die first; but the males, although surviving the females, are dull, and can hardly move, being apparently thoroughly exhausted with their reproductive duties."

In the dog, we also observe prolonged copulation. After the penis is introduced into the vagina, it swells, and becomes suddenly enlarged. The vagina closes tightly on and compresses it, arresting and holding it *in situ* for a long time, or during the secretion and ejaculation of the semen. The dog is furnished with no receptacle (vesiculæ seminales), as man is, for holding the semen after being secreted: hence secretion takes place only during copulation, drop by drop, instead of being injected at once into the female.

Cold-blooded animals, as lizards, serpents, &c., have a slow copulation, and remain several days in it; they are in a state of stupor and insensibility; they neither eat nor stir during the time. The female frog is obliged to carry about her husband for a long time on her back. He is provided by Nature, at the period of reproduction, with an enlarged thumb, which enables him to keep his hold, past the power of the female to shake him off.

In some classes of animals, copulation takes place with wonderful celerity; so quickly, in fact, that, at one time, it was stated that the coitus of stags had not been observed even by the oldest keepers. Prof. *Owen* tells us, however, that it has been observed in Richmond Park, in the following way: "The buck will be seen to scrape hollows two or three feet deep, in certain portions of the park; to these places he leads the does. One by one, they place themselves in these hollows; the buck drives away all other bucks from the neighborhood; then, with a rush, mounts the doe. In an instant, the act is accomplished, and the female retires, to be replaced by another."

In fishes, no copulation at all takes place; but the female deposits her spawn in favorable places, and the male, passing over it, fecundates the ova by emitting those immense

quantities of milt which everybody must have noticed in the soft-roed mackerel or herring.

Venereal excesses ordinarily occur through ignorance and imprudence, rather than from any confirmed sensuality. There is nothing, perhaps, in which constitutions differ more than in the amount of sexual exercise they can severally bear. In men, we find a very marked difference in this respect: while one individual will suffer for days from a single effort, another will not evince the least sign of depression, although the act is repeated several consecutive times, or several consecutive nights. In this respect, we find every degree of difference, from those of exceedingly erotic temperament and powerful frame, like the extreme case of a Greek mentioned by *M. Lallemand*, who, for years, indulged in sexual connection, on an average, fourteen times a day, to those who are injured by indulging oftener than once or twice a week.

No part of sexual intercourse differs more widely in different subjects than REPETITION OF THE ACT. In animals we find every degree of difference; we are told, that "the ram has been supposed to repeat the act from fifty to eighty times in the course of one night. A cock copulates with twenty or thirty hens in a short time. The stallion is, or rather ought to be, always limited to a certain number of mares; but, as he takes his mounts during a limited time (two or three months), the act is necessarily repeated very often, and at short intervals. . . . While, on the one hand, the ram and the goat can copulate so frequently as to excite our astonishment, among other creatures one copulative act seems to satisfy all the requirements of nature for a very long period. Thus, for instance, in certain birds, coitus is only requisite once in a season. In many parts of the country, where old women keep but one turkey-hen, she is sent distances to the cock only once in a season, yet all the eggs she lays during the year are fertile ones. In such cases, all the eggs must be impregnated at once, or the

spermatozoa be hoarded up in the cloaca till they are required." — *Acton.*

We are also told, that, among bees, copulation takes place once for all; that when the queen-bee takes her wedding-flight, in fine, warm weather (copulation never takes place in the hive), she makes her selection of a male bee (drone), and the act takes place in the air. It is very quickly completed, whereas other insects may remain days united in copulation. When the queen returns to the hive, after this single copulative act, her seminal receptacle is filled with male semen, which supply is sufficient for life, and she can, for four or five years, lay male or female eggs at will.

Among men, we find a wide constitutional difference as regards repetition of the act. As previously stated, one individual will suffer for days from a single coitus, while others evince not the slightest depression from a dozen consecutive acts.

"The lengths to which some married people go are perfectly astonishing. I lately saw a married medical man who told me, that, for fourteen years, he believed he had *never* allowed a night to pass without having had connection. The contrast between such a case as this, where an individual for fourteen years has resisted this drain on the system, and that of a man who is, as many are, prostrated for twenty-four hours by one nocturnal emission, is most striking." — *Acton. Cubrol* reports cases of men, in his Alphab. Anatom. Observ. 17, who performed the reproductive function forty times in one night, and forty-eight times in two nights; and *Flavius Vopiscus* tell us that Proculus, a Roman general, deflowered ten prisoners of war in one night. "Proculus Metiano affini S. D. centum ex Sarmatia virgenes cepti. Ex his una nocte decem iniui; omnes tatem, quod in me erat, mulieres intra dies quindecem reddi."

Ancient nations, sensible of the expediency of regulating, to some extent, sexual indulgences, enacted ordinances for the purpose. The following (says *Acton*) is a freely-translated extract from the "Uxor Hebraica" of *John Selden.*

"They would have the conjugal debt paid regularly by the husband, in proportion to the energy unused in his vocation. According to the Mischna, a man was allowed one or two weeks' leave of absence, on the score of religious vows of abstinence. Law-students were exempt. A weekly debt was imposed upon artificers, but a daily one upon vigorous young husbands having no occupation. Donkey-drivers, employed in transporting merchandise, &c., were liable once a week; camel-drivers, a calling entailing much labor and travelling, once in thirty days; sailors, once (at any time) in six months. This is according to the Rabbi Eliezer." *Mottray* states, in his "Travels," "that the Turkish law obliges husbands to cohabit with their wives once a week, and that, if they neglect to do so, the wife can lodge a complaint before a magistrate."

Dr. *Acton* expresses the opinion, that "sexual congress ought not to take place more frequently than once in seven or ten days; and, when my opinion is asked by patients whose natural desires are strong, I advise those wishing to control their passion, to indulge in intercourse twice on the same night. I have noticed, that, in many persons, a single intercourse does not effectually empty the vasa deferentia, and that, within the next twenty-four hours, strong sexual feelings again arise; whereas, if sexual intercourse is repeated on the same night, the patient is able so to restrain his feelings, that ten days or a fortnight may elapse without the recurrence of desire."

Jeremy Taylor, in his "Rules and Exercise of Holy Living," devotes a chapter to "Rules for Married Persons; or, Matrimonial Chastity." A few extracts here will not be out of place: —

"In their permissions and license, they must be sure to observe the order of Nature and the ends of God. *He is an ill husband that uses his wife as a man treats a harlot*, having no other end but pleasure. Concerning which our best rule is, that although in this, as in eating and drink-

ing, there is an appetite to be satisfied, which cannot be done without pleasing that desire, yet, since that desire and satisfaction were intended by Nature for other ends, they should never be separate from those ends, but always be joined with all or one of these ends, — *with a desire of children, or to avoid fornication, or to lighten and ease the cares and sadness of household affairs, or to endear each other;* but never with a purpose, either in act or desire, to separate the sensuality from these ends which hallow it.

"Married persons must keep such modesty and decency of treating each other, that they never force themselves into high and violent lusts with arts and unbecoming devices; always remembering that those mixtures are most innocent which are *most simple* and *most natural*, *most orderly* and *most safe*. It is the duty of matrimonial chastity to be restrained and temperate in the use of their lawful pleasures; concerning which, although no universal rule can antecedently be given to all persons, any more than to all bodies one proportion of meat and drink, yet married persons are to estimate the degree of their license according to the following propositions: 1. That it be moderate, so as to consist with health. 2. That it be so ordered as not to be too expensive of time, that precious opportunity of working out our salvation. 3. That, when duty is demanded, it be always paid (so far as in our power and election) according to the foregoing measures. 4. That it be with a temperate affection, without violent transporting desires or too sensual applications; concerning which, a man is to make judgment by proportion to other actions, and the severities of his religion, and the sentences of sober and wise persons; always remembering that marriage is a provision *for supply of the natural necessities of the body*, not for the artificial and procured appetites of the mind. And it is a sad truth that many married persons, thinking that the flood-gates of liberty are set wide open, without measures or restraints (so they sail in the channel), have felt the final rewards of

intemperance and lust by their unlawful using of lawful permissions. Only let each of them be temperate, and both of them be modest. Socrates was wont to say that those women to whom Nature hath not been indulgent in good features and colors should make it up themselves with excellent manners; and those who were beautiful and comely should be careful that so fair a body be not polluted with unhandsome usages. To which Plutarch adds, that a wife, if she be unhandsome, should consider how extremely ugly she would be if she wanted modesty; but, if she be handsome, let her think how gracious that beauty would be if she superadds chastity."

Excess has, ordinarily, a less deleterious influence on those who take plenty of exercise in the open air than on those who are confined within doors, or those who are indolent, or whose mental powers are severely taxed: therefore, the student is more liable to become affected by slight excess than one who follows healthier pursuits; and he who indulges in immoderate drinking or smoking is more prone to become affected than one of more temperate habits.

Excesses occur, not unfrequently, in unequal constitutions, from a desire to please, and not to appear deficient either in vigor or sensibility; and the husband exhausts the wife, or the wife the husband, which is dangerous, both physically and morally, and ruinous and destructive in the extreme. Each should have a careful consideration for the health and happiness of the other, and, under no consideration, demand or permit a partner of life to overtask his or her energies for their own gratification.

Neither women nor any of the female animals secrete or lose semen during copulation, or any thing analogous to it. Their ejaculations consist simply of vaginal mucus and epithelial scales. "Nevertheless, as an effect of long-continued and often-repeated sexual shocks, women may, feeble as their sexual tendencies are, compared with man's, become

subject to epileptiform attacks and various nervous affections." — *Acton.*

Excess has, ordinarily, a less deleterious influence on females than on males. The spermatic fluid of the male, and the vaginal of the female, are not only supplied in very different proportions, but that of the male is the most important; for it imparts life, and great languor follows its effusion. But the vaginal ejaculation of the female is unprolific, and scarcely diminishes sensibility; nor is it followed by that prostration which results from the discharge of the male sexual element.

"If the reason be inquired, why one sex is more insatiable than the other, the answer is, Because the one dispenses less vitality than the other. It is now universally admitted by physiologists, that there is no supply of feminine seminal fluid during the act of reproduction, but a germ in the ovary is impregnated (?) though there may be a more or less abundant secretion of fluid from the membrane and subjacent glands of the vagina and uterus; but the sensibility remains vivid after the effusion of this fluid, while the emission of the male is followed by an immediate abatement of amorous impulse: in fine, the conformation of the sexes enables the female always to receive, and never, according to the expression of Salomon, to be satisfied ('os vulvæ numquam dicit, sufficit'); and therefore sexual enjoyment is considered more delicious and protracted in one sex than the other.

"If we consider that the other sex have the nervous system much more sensitive than ours, the skin finer and more delicate, that their feelings are more acute, their mammæ the seat of vivid sensibility, from uterine sympathy, the nipples erected during intercourse, we must agree with *Delignac*, 'that their enjoyment is more intense and extended through the whole economy than in man; and that coition or impregnation generally excites in them a universal tremor in all parts of the body.'" — *Ryan.*

As regards the test which every married man should apply in his own case, *Lallemand* says, "When connection is followed by a joyous feeling, a *bien être général*, as well as fresh vigor; when the head feels more free and easy, the body more elastic and lighter; when a greater disposition to exercise or intellectual labor arises, and the genital organs evince an increase of vigor and activity, — we may infer that *an imperious want has been satisfied* within the limits necessary for health. The happy influence which all the organs experience is similar to that which follows the accomplishment of every function necessary to the economy."

"How serious, how *vital*, an act, so to speak, that of copulation is, appears from the marked changes which accompany its performance in the lower animals. Whether any corresponding alterations occur in man we have no means of knowing; but we observe, that, in the rutting season, buck-venison is strong, lean, and ill favored. At this time, we are told, the flesh becomes soft and flabby; the hair looks 'unkind;' and, in birds, the feathers, after the season of breeding, are in a ruffled state, and drop; the horns of stags fall off, and the blood is occupied in supplying the consequent demand for new osseous matter.

"It is before the spawning season has passed that we prefer the herring; and it is only while it is filled with roe, that we care to eat the mackerel; a spent salmon is not fit food for man; and, at this period, the vivid colors of the trout, all fishermen are aware, entirely disappear, and they retire, exhausted and impoverished, until the vital forces are regained." — *Acton.*

Excess combines with it other disastrous effects; it sets happiness at hazard, it jeopardizes conjugal felicity. Youthful impetuosity and ardor unrestrained, like fiery steeds confessing no master, pursue their way until exhaustion stops career. Charmed with the exercise of a new faculty, they deliver themselves up to its enchanting ecstasies, and resolve not to quit the bowl without a surfeit. With no

restraint of reason, or government of prudence, the affections unhusbanded, and prodigal in fondness, they expend at once what would, properly managed, have maintained a passion for life. Vehemence subsides, and apathy takes its place; they seek, but in vain, for those charms with which they had formerly been so much enamored; excessive use lessens the transports of delight, and satiety follows quick on the heels of inordinate indulgence. Prodigality charms for the moment, but surfeits; frugality heightens the taste, and prolongs pleasure. The art of managing pleasures consists in being sparing of them. Repletion calls for a change; other essentials are demanded, which will supply the place of those that have produced satiety. Possession absolute, free, and uninterrupted, and the novelty gone, life becomes vapid and bitter, unless there be other materials for mutual entertainment. A well-stored mind, and an accumulated fund for reflection and delightful converse, or a capability of occupying the thoughts with objects worthy of attention, are necessary. Without these, naught is left which can renovate the power of charming; and insipidity on the one hand, and desire for *variety* on the other, are imminent. Farewell, then, conjugal felicity! Inquietudes, jealousies, quarrels, inconstancy, and infidelity will be your destroyers.

Beauty is no safeguard. Beauty is captivating; but its reign is limited. Beauty commands admiration; admiration, though, is short lived. Jason's admiration for Medea was beyond description; yet possession dissipated it, and he repudiated her. Indifference pursues admiration. The same set of features, however beautiful, soon tire; like a fine picture, they soon weary. A cultivated mind never tires.

Good nature, although desirable and essential, is no safeguard. It is a most admirable quality, but good for nothing alone; and, besides, it won't keep: it changes its nature, and becomes sour by long standing, or wholly insipid. An eternal sameness, unspiced by any of those little shortcom-

ings in the way of equanimity, — piques, pouts, caprices, jealousies, quarrels, and reconciliations, becomes exceedingly tiresome. Variety, we are told, is the spice of life; and the want of seasoning in this respect, although rare in the sex, when it does become an exception to the general rule, engenders wearisomeness and indifference. It gives no sort of chance for a quarrel, and none of those enchanting sensations which are called up by reconciliation. "She is so reasonable, so gentle, that she deprives one even of the liberty of squabbling with her; and that liberty is sometimes so great a pleasure!

"Place in her stead a woman lively, uncertain, froward, but these only to a certain degree. The scene is shifted: the lover (or the husband) meets the same person with all the charms of variety. Caprice is the salt of gallantry, that preserves it from corrupting. Inquietudes, jealousies, quarrels, piques, and reconciliations are, if not the diet, at least the exercise, of love. Enchanting variety! that fills and occupies the sensible heart more charmingly than all the regularity of deportment and tedious sameness of what are deemed the better characters."

A little change of temper occasionally is not without its good effects: in fact, is absolutely necessary. It arouses man from supineness; it creates doubts, uneasiness, agitation. He reflects, struggles, but is finally conquered, and would conciliate. He redoubles his diligence to please, oblige, and demonstrate true affection; and thus, amid the tempests and convulsions of love, its chains are strengthened.

We are no advocate for that constant irregularity, or those ebullitions of temper, which end in any thing like a "jolly old row," or which lead to a preliminary smash of crockery sufficient to macadamize the way to a divorce; but that variety in equanimity which prevents man from growing weary through constant regularity or tedious sameness is a preservative of conjugal felicity.

Rochefoucauld tells us, that "it is more difficult for a man to be faithful to his mistress when he is favored than when he is ill treated by her."

"Our aunts and grandmothers always tell us that men are a sort of animal; that, if they are constant, it is only when they are ill used. It was a kind of paradox I could never believe; but experience has shown me the truth of it." — *Lady M. W. Montague* (*Letters*).

"The rigors of mistresses are troublesome; but facility, to say truth, is more so. 'Si qua volet regnare diu contemnat amantem.'" — *Ovid. Amor, Montaigne.*

"Prythee, tarry;
You men will never tarry.
O foolish Cressid! I might have still held off,
And then you would have tarried."

Troilus and Cressida.

If *good nature* be woman's only dower, indifference and contempt are not far distant.

Good sense is no safeguard, — an estimable quality, truly, but, by itself, a most dangerous weapon; and, skilfully wielded, can be made to pierce with sarcasms so adroitly guarded, that, while they are keenly felt, one cannot, with propriety, complain of them. The more good sense, penetration, and knowledge of the world one possesses, uncombined with other good qualities, the more dangerous it becomes. It wounds sensibility; quarrels and reconciliations follow each other in quick succession, until, at last, conjugal felicity emerges into continual dissensions, increasing aversion, indifference, contempt.

Good nature, though, combined with *good sense*, docility of character, and ease of manners, forms a chain strong and binding. United, they fail not to engender and preserve *esteem*; and, where esteem is, love is permanent.

To retain undiminished regard and admiration, to be permanently agreeable, mental excellence (we do not say mental superiority) is indispensable: without this, the most be-

witching charms, after possession is absolute and the novelty passed, are of no effect; and the loveliest form is ungracious and even tiresome. Possessing this attribute conjoined with gentleness of character, compliant, reasonable, and contented disposition, woman is the greatest blessing and the most valuable possession that Heaven, in this life, can bestow. She is one of the queens in the garden of life; she is worshipped; she inspires man to excellence and to fidelity; she makes his pleasures permanent; she softens all his cares, and sweetens the bitterness of life. Together they tread the pathway of life; each enlivening and embellishing the other's world. They understand the looks of each, and mutually comply with each other's designs. They acquire a similarity of tastes, while they enjoy a community of pleasures.

How important, then (and this brings us to the practical point), that, in mental culture, the young woman should possess, with her varied accomplishments, those solid attainments so absolutely necessary for her happiness in after-life, — necessary, that she may not only possess the art of securing a suitable companion, but of *preserving* him. Within the pale of her acquisitions, nothing should escape her which will lend fertility to imagination, or charm to conversation, by which the sluggishness of human nature may be enlivened, and hours agreeably occupied which would otherwise hang heavy. Is she deficient in imagination, let her read Milton, Akenside, and Burke; if deficient in taste, let her read the best English poets, such as Gray and Goldsmith, Pope and Thomson, Cowper and Coleridge, Scott and Wordsworth; if deficient in the power of reason, let her read Chillingworth, Bacon, and Locke; and Junius and Fox, if deficient in vigor of style: in fine, she should possess that mixture of solid and agreeable qualities which only can preserve a constant tenor of approbation and esteem.

It may not be unacceptable to the reader if we give at

this point the views of a distinguished writer as to the *choice of a wife*. Any advice as to what sort of a person a man should marry is in many, if not most cases, quite superfluous; but there *may* be those to whom the few hints thrown out by Dr. *Acton* would prove acceptable. These hints are "not so much the kind of a wife they *should* choose, as the kind they should *not*." He remarks:—

"First as to AGE: I think there should always be an interval of about ten years between a man of mature age and his wife. Women age much more rapidly than men; and, as the peculiar functions of matrimony should cease in both partners about the same time, some such interval as this is evidently desirable. Still, if a man will marry young, there are so many causes of unhappiness from his marrying a mere child of fifteen or sixteen, that it would be well in such cases to seek a companion somewhat nearer his own age.

"As to HEALTH: every man should be *very* careful, and note every characteristic about any woman who attracts him, which may seem as an indication of this primary requisite, or of its absence. The existence of insanity or consumption in her family, to any serious extent, should warn him, for his own sake and the sake of the children he might have, not to run the terrible risk of marrying her.

"No girl, it may safely be said, who has been habitually ailing during her girlhood, will make a good wife: nay, I would carry the rule further, and warn my prudent readers that *pale* women, with colorless faces and waxy skins, even if they are tolerably healthy themselves, very seldom have healthy children. So important is it to select for a future partner for life, and mother of children, a woman of undoubted health, that I would go one step further still, and urge any man who consulted me on such a subject, if he were free to choose, to select a *country* wife, especially if he be necessarily a dweller in a large town. The children of parents who are both Londoners, for instance, are especially

hard to rear, — so hard, that some lay it down as a rule, that, after three generations, every family that has uninterruptedly been born, lived, and died in town, becomes entirely extinct.

"Closely connected with the question of health is that of EDUCATION and past history. It is, however, always unnecessary to urge men to avoid, if possible, a vulgar or bad-tempered mother-in-law. But it should not be forgotten, in the natural desire to escape unpleasant relations, that a member of a large family will, *primâ facie*, make a healthier and sweeter-tempered wife than an only child. As to intellect, accomplishments, and fortune, men need little advice. Literary women are not likely to be much sought after for wives; and great accomplishments so seldom survive the first year of married life, that ordinary men are too sensible to prefer them to a pleasant manner, a sweet temper, and a cheerful disposition.

"As to FORTUNE: it is hardly my province as a medical man to advise on this subject. Still I would suggest, that if the course of life which I have pointed out as best has been really followed; that is, if a young man has lived a thoroughly continent life in body and mind until he is in a position to maintain a wife, — there seems little reason, in choosing her, to give the question of fortune any great weight. Most women will spend the fortune they bring; and the propriety of the husband's supporting, rather than being supported by, his wife, will tend to make the home happier.

"As to RANK AND POSITION in society: it is, of course, desirable that the wife should be as nearly as possible in the same rank with her husband; but, if there be a difference, the husband ought to be the lower. Men can and often do rise from a humble origin to a social status far above that of their wives, however great the disparity was originally. But this is very seldom the case as regards women. They generally remain to the end *socially* the same as they were

born. Money may do much; but it can hardly raise a vulgar, low-born, or originally immodest woman one step in the social scale, however great her husband's fortune and position may be, or however faultless her own married life. She may, perhaps, to a certain extent, hide the traces of her early training from *men;* but her own sex, whom she meets with in the rank of her husband's society, will be sure to detect them at once. I have been often asked, 'Shall I (other things equal) marry for beauty?' I answer, 'Yes, if you can get your beauty to accept you.' Let ugly people talk as they may about intellect and the evanescent charms of mere outward comeliness: some degree of beauty is, if not the first, certainly the second requisite, in most cases, to a happy married life. 'How exquisitely absurd to tell girls that beauty is of no value, dress of no use! Beauty is of value: her whole prospects and happiness in life may often depend upon a new gown or a becoming bonnet; and, if she has five grains of common sense, she will find this out. The great thing is to teach her the just value, and that there must be something better under the bonnet than a pretty face for real happiness. But never sacrifice the truth' (*Rev. Sydney Smith*). A tolerably large acquaintance with the domestic histories of men in all ranks of life has shown me, that, next to a good disposition, nothing in a wife is so likely to insure domestic happiness as good looks, especially if they are of a lasting kind, not mere bloom or prettiness. We all know that good looks are the best passports in the world. Even children, the most unprejudiced witnesses possible, frankly admit that they like so and so, because she or he has a nice face. It is unwise to undervalue, or pretend to undervalue, the woman's comeliness of face and form. A woman with a good physique starts with advantages that other women cannot acquire. She is spared a thousand and one temptations — jealousy, and other low feelings supposed to haunt occasionally the female breast — with which her less favored sisters have to contend.

Physical attractions again help to tide over many of those little domestic differences which will occur in married life. Man's sexual sense will be aroused by beauty when no other influence can touch him. It would be a curious inquiry, perhaps worth pursuing, whether, even among the lower classes, a comely-looking woman was ever ill used by her husband, except when he was drunk. In a state of nature, we find that animals select the most perfect forms for their mates, thus instinctively providing for the perpetuation of as perfect species as possible. It would be well in many respects if this example were more closely followed in human beings."

To return to our subject: we will take the occasion to remark, in conclusion, that while sexual excess is capable of producing most serious evils, and of causing exhaustion and disease, — hysterical and menorrhagic symptoms, debility, sexual apathy, organic disease of the sexual organs, and a multiplicity of other ills to which the sex is liable, — yet we must declare, what we most sincerely believe, that the opposite extreme of ABSTINENCE and SEXUAL DISAPPOINTMENT is the cause of more real disease and misery in one year than sexual excesses cause in a century. Where over-use of the sexual organs conduces to disease in any single instance, *sexual abstinence* is the cause of ill-health in thousands; and, strange as it may appear, while the former has, from time immemorial, been a constant theme of declamation, the latter is never alluded to by the moralist, but for the reason, it may be supposed, that it is contrary to his belief, and opposed to his religion and to his notions of morality. Still, however much it may be opposed to the generally-received notions of morality, it is nevertheless true, and capable of demonstration, that abstinence, with its never-failing attendants, — seminal weakness, hysterical disturbances, and a multiplicity of other ills that attend on sexual denial, — outweigh as a thousand to one the infirmities induced by sexual excesses, which will now engage our attention.

Sexual Disappointment. — Privation of sexual stimulus is another exciting cause of this disease. It is a *frequent* and *common* cause, — more frequent than all other causes combined, and so common, that we have but to turn our eyes, and we see its disastrous effects on every side. We see its effects in those unmarried and chaste whose feelings and passions are strong. We see its effects in its sudden denial to those accustomed to its indulgence, as young widows, and in wives of sailors and other men who are constantly taken from home by their occupation. We see its effects in females sold to vice, when placed in confinement; and we see its effects also in those married, but where, from disparity of years, or from constitutional feebleness on the husband's part, or physical disproportion, the act is but imperfectly performed.

Absolute privation in those whose feelings and passions are strong, and its sudden denial to those accustomed to its use, or where the act is imperfectly performed, *is a fruitful and common source of a multiplicity of ills peculiar to young women*, which have been usually ascribed to other and more prominent agents.

Many there are who will start at this declaration; but we call on them to recollect that a large proportion of the ills peculiar to the sex do not occur until the female arrives at an age when the generative organs have a dominant influence over the system. They do not occur until the female is pressed by a new want; until she is incited by the "instinct of reproduction," or "desire," which desire persists vehemently so long as the generative organs hold this influence. We call on them to recollect that the final cause of all vital action is the reproduction of the species and the preservation of the individual; that, throughout the whole chain of being, the power to reproduce the species is the climax of development; that man and animals are placed on the surface of the earth, each to reproduce their kind; that this is the great end, aim, and mission here

upon the earth, "to be fruitful and multiply, and replenish the earth;" that many of the inferior animals and insects die so soon as they have performed this function: butterflies, silkworms, and other insects are examples. And we call on them to recollect that Nature never sleeps, and always labors to carry out her designs. This done, desire is appeased, is satisfied, — satisfied, because her designs, her wants, her requirements, her demands, have been complied with. The mind is tranquillized; the regular action of the vital organs is restored.

Desire is a principle implanted deeply within us. It is natural. It is a law of Nature, and a law not to be ignored or opposed. Its force is of immense power, which power, if imprisoned, and not permitted to discharge or expend itself through its natural and legitimate outlet, falls with varying degrees of intensity upon that portion of the economy the least able to ward off its disturbing force. The excited and sensitive ovaries receive the entire shock; and an irritation or subacute inflammation is set up in them, which leads *very frequently* to profuse flow, and *often* to amenorrhœa, chlorosis, dysmenorrhœa, leucorrhœa, &c.; and, if the cerebro-spinal sympathies are called into active play, hysteria in all its multiplied forms of headache, suffocation, globus hystericus, spasms, convulsions, &c., often mask the local cause.

Let us inquire into what this force or *desire* is, its purposes, the intensity of its power, and its disastrous effects when not permitted to discharge or expend itself by its natural and legitimate outlet. Let us see what are the results when the immutable laws of fecundity and reproduction are perverted; when forced continence denies to the sexual organs that for which they were designed; when it opposes Nature, and resists her demands.

The *passions*, like the affective faculties and affections, are those active powers which connect us with the beings that surround us, and are the incentives to our social con-

duct. By them the sexes are attracted. Like hunger and thirst, they are suggestive internal sensations, but of higher cast and more formidable. Hunger and thirst announce physical necessities. Passional emotions suggest social relations. Like all other internal sensations they have the character of pleasure or pain. When slightly experienced, there is only *uneasiness* felt. They are, however, continuous and cumulative in their character, and soon increase, and induce *restlessness* or *inquietude;* and, when extreme, they become desire, torment, passion (from *patior*, "I suffer"). When being satisfied, they are, as in hunger and thirst, the source of *pleasure;* when resisted, of *pain.*

This force, or these internal sensations, which become desire, torment, passion, are infixed within us for wise purposes.

Primitive creation of living organized matter was fashioned by the hand of the Creator. Generation is but the continuance of the arrangement of each organized species. Each individual reproduces, and was intended to reproduce, as he has been produced himself. Each enjoys life, and was intended to possess it for the purpose of transmitting it to others. They possess no isolated or independent existence; they do not live for themselves alone, but for those that are to come after them. Nature cares not for the individual, but the species.

Inorganic bodies do not engender. They have neither races, families, nor species. They do not spring from bodies like themselves, nor do they transmit their qualities, but always remain in the same primitive nature. They do not live: they cannot die. They do not reproduce, because they are indestructible.

Organic bodies are endowed with the power of life. They succeed each other without ceasing. Emanating from the Deity, they keep up a constant succession of individuals by generation. They reproduce because they are destined to die. They reproduce, that their genus, or kind, may be transmitted ere they die.

Reproduction is the climax of development, — the great end and aim and mission of men and animals here upon the surface of the earth; and Nature has, for wise purposes, given pleasure to all animals for their individual propagation; has given pleasure to *insure* the perpetuation of the species, and prevent the earth from again becoming a desolate waste. For this reason, love is the same to all: it conquers all. "Amor omnibus idem: omnia vincet amor."

Reproduction consists in the growth of an ovum, or egg, supplied or evolved by the ovary of the female. The testes of the male secrete a fluid, which, when placed in contact with the egg, or germ, fecundates or vivifies it.

In man and the superior animals, union of the sexes is necessary, that the male vitalizing fluid may be conveyed within the appropriate organs of the female, in order that, from the contact between the male sexual element and the ovule of the female, a new being may result.

To this union, man and the superior animals are incited by an imperious instinct of reproduction, or *desire*, as it is termed, — an instinct or desire implanted deep within the constitution by the Creator, for the perpetuation of the species; and, "for wise purposes, its gratification is attended with the most pleasurable feelings that man or animals can experience." — *Dunglison.*

"Behold," says the eloquent *Virey*, "what pomp, what joys, what glory, and what magnificence are prepared by Nature for the marriages of plants and animals! How the lion and the bull pride themselves on their strength; the antelope, on its figure; the peacock and swan, on their plumage; the fish, on its silvery coat, and on the splendor of the gold and brilliant appearance of its body! How the butterfly expands its diamond wings! how the flower displays its charms to the rays of Aurora, enjoys in silence and drinks the pearly drops of the dew! All is the radiance of beauty in Nature; the earth, co- ered with verdure,

resounds with accents of joy, and sighs for pleasure; all exhale love, all search for it and enjoy it: in a word, it is the common festival of beings. But in a short time the flower fades away, and languishes on its stem; the butterfly declines and dies; the lion and the bull, as if fatigued by long-contested fights, search for peace and retreat; and man himself, overcome with languor, retires in silence, full of recollections and sadness, seeing the approach of death, which presses its iron hand on all that breathes."

"Nature sacrifices every thing to reproduction: it is for this that we enjoy all strength, vigor, and beauty, so as to excite us to contribute to the procreation of the species, with which such exquisite pleasure is associated; and it is for this that we experience so many sweet illusions in the brilliant season of our amours; and that we give way to others when our reproductive powers have failed. In a word, Nature *always* regards the species, and never the individual.

"The delightful sensations experienced by animals in the act of reproduction cause them to perform it instinctively. But nobler sentiments preside over the conjugal union of our species. Two souls which sympathize for each other, and see in common the wisdom of procreating offspring like themselves; two hearts which console each other in the troubles of life, and centuple their pleasures by the most intimate union; the delights of a conversation full of tenderness; the affectionate cares bestowed on each other during illness; an association of talents, qualities, riches, honors, and paternal and maternal love, — are the precious advantages which mankind derive from conjugal union. But, whatever may be the superiority of man over inferior animals in respect to generation, we cannot conceal from ourselves, that, like the brutes, we are seldom influenced by any other motive in our unions than by sexual pleasure. It is useless for us to deny that the majority of marriages which are apparently based on real love are almost always the result of our

servile and involuntary obedience to the imperious voice of our sexual organs. Every thing that presents to our minds the idea of vigor, of a fine figure, and sufficient ardor, always influences us unconsciously. Woman can never deny that she has a particular predilection for a fine figure, a noble gait and manner, a broad chest, the head elevated, and furnished with a luxuriant growth of hair, the eyes full of fire, the manners amiable, and the gallantry polite. In the same manner, man is always desirous to meet in her whom he selects for his wife superior mental and corporeal endowments, a fine graceful figure, good eyes, and a general development." — *Ryan.*

The instinct of reproduction, or desire, becomes fixed at puberty, the period when the individual is capable of procreation.

As this epoch approaches, the sexual organs undergo changes which fit them for the performance of their appropriate functions. "Nature directs all her powers of development and vitality to those organs which she has destined for the procreation of new beings. All the other functions of the body are sometimes diminished, — digestion, respiration, circulation, the intellectual faculties, the senses, the motions: in a word, Nature seems to suspend the growth and functions of all other parts to give a rapid development to those intended for the perpetuation of new beings. There is a determination of blood to the sexual organs; *these rapidly increase in size, secrete fluids highly excitant, which sympathetically affect all parts of the body,* and are intended to prepare the organs for regeneration of the species."—*Ryan.*

In the female, both the external and internal organs undergo a rapid enlargement. The mons veneris and labia become more full. Surrounding the vagina, a deposit of fat takes place, which gives an elastic contraction to the vulva. The clitoris and nymphæ become more susceptible of swelling and erection, and the former especially becomes endowed with the most intense erotic sensibility. The breasts en-

large, and the nipples acquire the power of erection. Sensibility becomes quickened, and the energy of desire becomes her prominent characteristic. "The textures of her organs do not lose all their original softness, or assume the strength of those of her companion; her eyes become brilliant and expressive, and all the graces and charms of youth illumine her person. Her bosom throbs with tender inquietudes, her character loses its infantile vivacity, her manner and tastes become analogous to those of a full-grown female, her passions become stronger and more constant, her moral and physical sensibility are greater, and she feels a sentiment hitherto unknown to her, — the impulse of love, the desire of marriage." — *Ryan.*

In the male, the penis and testicles undergo a rapid enlargement; the latter become more depending, and secrete seminal fluid, which excites to frequent erections and desire for sexual intercourse, which, if resisted, is followed by spontaneous emissions of seminal fluid, occurring generally at night, during sexual feelings in dreams. This latter is disputed, so also the statement that the presence of seminal fluid excites to frequent erections and a desire for sexual intercourse; but we have the testimony of *Haller*, who says, "The semen contained in the testicles excites the animal to the venereal act." We have also other testimony. "The accumulation of seminal fluid," says *Ryan*, "excites strong desires." At this period of life — puberty — "spermatozoa are becoming rapidly adult, the testicles and the ducts are full of semen, the individual is in the condition of a fish with a full milt, or a bird or stag with enlarged testes. He now instinctively seeks the society of women. These things are not so much matters of chance as is generally imagined; and the testicles may be blamable for much of what is usually ascribed to the heart. Intercourse with females increases his excitement, and all is ready for the copulative act." — *Encyclopædia of Anatomy, art. "Vesiculæ Seminales."*

From this superabundance of life, a new and imperious want becomes developed, which compels the sexes to approach each other. They draw away from companions of former days. The sports of infancy no longer amuse them. An aching void in the heart demands a change, a something, they know not what; for they cannot analyze their feelings. Timidity and reserve restrains; but an unknown power, something never before experienced, a sympathy, a vague undefined *something*, attracts and impels each to seek fellowship with the opposite sex. Extravagant imagination casts a halo around and shuts out all else save themselves. They hold their little counsels, the beginning of their history, the first page of their mutual life. Restraints of timidity and reserve insensibly give way to confidence. Confidence engenders friendship, and friendship ripens into tender and vivid sentiment. Each now beholds in the other all possible excellences, which, in turn, give way to intoxicating dreams of beauty and perfection; and each becomes in the estimation of the other an absolute divinity. Their minds are passing through preparations; they are progressing, and ere long will awaken to accurate notions of an affection which is to be the principal affair of life.

"What delightful reflections are offered to the study of a moral and philosophic mind by the innocent amours of two young persons, who know no other motive for their actions than the pure inspirations of Nature and the heart! The strictest chastity presides at their first interviews: a word, a glance, a whisper, the pressure of a trembling hand, is now the enjoyment of happiness. They do not approach each other but with a respectful fear; they dissemble towards each other the nature of the sentiments which agitate them; they think 'unutterable things.'"

This stage of existence lasts not long. Shadowy delineations begin to unfold themselves, and their respective positions begin to be understood. At last, young desire throws aside its disguises, and the passions begin to whisper with

many silver notes. The youth becomes by degrees uneasy, restless, fiery, and desperate at control. The new want produces in him "a mixture of audacity and timidity; of audacity, because he knows that all his organs are animated with an unknown vigor; of timidity, because the nature of his desires astonishes him, as defiance to them disconcerts him. In the young girl, this want gives rise to a sentiment of modesty or virgin shame, of which she was heretofore ignorant, which may be regarded as the hidden expression of her desires, or the involuntary sign of her secret impressions." — *Cabanis.* She becomes all timidity; but her thoughts are active, and imagination paints in the brightest tints and colors. The heart admits her into its secret counsels, and interior movements rouse her from supineness. The voice of Nature is speaking within her. That imperious instinct implanted deep in her constitution has become aroused. A presentment of generation and its pleasures has unfolded itself; and a predilective instinct leads her to aspire after strength, vigor, and impetuosity, and to regard with contempt the effeminate, impotent, and castrated; for Nature has, for the purpose of obtaining strong and vigorous progeny, assigned to strength the preference in the love of the female. She would barter love for physical power; and she calls to her aid those peculiar characteristics of woman, coquetry and modesty, which, though opposed in their first or immediate effects, contribute to one great end. She redoubles her diligence to please and attract, and avails herself of all the innocent artifices of her sex. Defects are concealed. Charms are enhanced. She cultivates every agreeable art, and avails herself of the resources of dress to improve and announce her taste. She would seduce and subjugate the stronger, as Venus did the god of war, by the charms of beauty and grace.

Rousseau correctly perceived the relations of coquetry to the constitution of women, and regarded it as one of the happiest affections. Painting it even among birds, he says,

"Step by step the white dove follows her well beloved, and flees from him directly he returns. If he remain inactive, she arouses him with gentle taps of her beak; if he return, she pursues him; if he defend himself, a little flight of six steps attracts him again; the innocence of Nature contrives these allurements and this gentle resistance with an art that the most skilful coquetry can scarcely equal."

In relation to the female, "Modesty restrains the maiden from yielding precipitately to tender feelings, and compels her love to assume that form by which Nature has taught her so universally to express it; to present it under the mask of friendship, gratitude, and a thousand other guises.

"In relation to the lover, it is remarkable that the first affections are presented to him under the appearance of estrangement. The maiden flies that she may be pursued by him, and his love is kept alive by modesty. It has been observed by all physiologists, that this disposition is not only necessary but indispensable for the continuation of the human race.

"Thus, even modesty is a means of attraction with which Nature inspires females. But those who declaim against this know nothing of Nature. Every separation, every obstacle, renders desire only more urgent; and Nature appears to have accomplished this in the only way possible among beings endowed with sensibility and locomotion." — *Walker.*

Nature, ever on the alert, employs many devices to bring the sexes together. The wonderful design evinced by means of a phosphorescent light, as is the case with luminous insects, is thus alluded to by *Kirby and Spence.* "The glow-worm (*Lampyris noctiluca*) is an insect resembling a caterpillar; its light proceeds from a pale-colored patch that terminates the under side of the abdomen. It is, indeed, the perfect female of a winged beetle, from which it is altogether so different, that nothing but actual observation could have inferred the fact of their being the different sexes of the same insect. The object of the light appears

to be to attract the male, since it is most brilliant in the female; and in some species, if not all, is present only in the season when the sexes are destined to meet, and strikingly more vivid at the very moment when the meeting takes place. The torch which the wingless female, doomed to crawl upon the grass, lights up at the approach of night, is a beacon which unerringly guides the vagrant male to her 'love-illumined form,' however obscure the place of her abode."

Touching the changes wrought by puberty, let us refer to *Carpenter*, and others. He says, "At this epoch, a considerable change takes place in the bodily constitution; the sexual organs undergo a much increased development; various parts of the surface, especially the chin and pubes, become covered with hair; the larnyx enlarges, and the voice becomes lower in pitch, as well as rougher and more powerful; and new feelings and desires are awakened in the mind.

"To the use of the sexual organs for the continuance of his race, MAN is prompted by *powerful instinctive desire*, which he shares with the lower animals. This instinct, like other propensities, is excited by sensations, and these may either originate in the sexual organs themselves, or may be excited through the organs of special sense. Thus in man it is most powerfully aroused by impressions conveyed through the sight or touch; but in many animals the auditory and olfactory organs communicate impressions which have an equal power." — *Physiology.*

"From the moment," says *Lallemand*, "that the evolution of the generative organs commences, the testicles act, if the texture is not accidentally destroyed; and they will continue to secrete up to a very advanced age. It is true that the secretion may be diminished by the absence of all excitement, direct or indirect, by the momentary feebleness of the economy, or by the action of special medicines; but it never entirely ceases from puberty to old age."

"Now begins," says *Acton*, "the trial which every healthy boy must encounter, and come out victorious, if he is to be all that he can and ought to be. The child should know nothing of this trial, and ought never to be disturbed with one sexual feeling or thought. *But with puberty a very different state of things arises; a new power is present to be exercised, a new want to be satisfied.*"

The energy of desire persists vehemently during youth and adult age, but disappears in advanced life.

During the youth and adult age of woman, sensibility is her predominant characteristic. Age, however, destroys the energy of desire; reflection takes its place; and the mind increases in clearness, and the judgment becomes perfected.

During youth, "both sexes," says *Ryan*, "should act in strict accordance with the precepts of religion and morals, as errors committed now are too often irretrievable. The tender sex, which are the objects of the most ardent fire of zealous adoration, and who burn themselves with the same flame, must never yield to the slightest immodest advances, or their ruin and degradation are inevitable. The usual result of impertinent familiarity, of illicit or anticipated love, is disgust, desertion, and indelible disgrace. A virtuous and firm resolution is the only safeguard, and a fixed determination not to remain alone, or beyond the hearing of others, with him who has captivated the heart."

DESIRE, then, is law, — a law of God, implanted deep within the constitution, by the divine Framer of all things, as a *guaranty for the continued existence of the species, or their perpetuation upon the surface of the earth.*

When complied with, it becomes the source of pleasure. When resisted, it becomes uneasiness, restlessness, torment, pain, *passion;* for it is cumulative in its character, and its disturbing force is of immense power, capable of influencing the whole physical, intellectual, and psychological nature of the subject of it. "The pleasure which Nature joins to sexual union is an attraction so imperious and ty-

rannical as to be required as powerfully as any other want; and the inferior animals are impelled to it by an instinct even stronger than life; 'in furias ignesque ruunt, amor omnibus idem.'" — *Ryan.*

Desire, then, is intense. It is also universal, determinative, and capable, in its exaggerated intensity, of lashing into fury the entire community of organs. The latter is strikingly exhibited in those animals in which generation can only be effected at particular periods of the year, or whilst they are in *heat*, — the *rutting* season: they are agitated and restless, and their cries and accents announce their wants. It is exhibited in those ebullitions displayed by the boar, the stag, the bull, and the stallion; the latter especially, — gentle, tractable, caressable, and controllable when uninfluenced by intricacies of situation, but high-mettled and savagely proud, pawing the earth with impatient foot, neighing with outstretched and inflamed nostrils, ardent, jealous, and impatient of restraint, when reigning as sultan over the sultanas of his own species.

The force of desire is exhibited in the mewing of cats, the lowing of quadrupeds, and the cackling of birds after they have laid their eggs. These are familiar examples of solicitation of animals to reproduction. It is also exhibited in the risks which animals — and not only animals, but men — will run to enjoy the gratification, and in the recklessness with which even the wildest male will approach the tame female when in heat. It is exhibited in the risk which the young male spider runs in essaying to perform the great act for the conservation of the species. "The young and inexperienced male," says *Owen*, — "always the smallest and weakest of the sexes, — has been known to fall a victim, and pay the forfeit of his life, for his too rash proposals. The more practised suitor advances with many precautions, carefully feels about with his long legs, his outstretched palpi much agitated. The female indicates acquiescence by raising her fore feet from the web, when the male rapidly

advances. His palpi are extended to their utmost, and a drop of clear liquid ejected from the tip of each clavate end, where it remains attached; the tips themselves immediately coming in contact with a transverse fleshy kind of teat, or tubercle, protruded by the female from the base of the under side of the abdomen. After consummation, the male is sometimes obliged to save himself by a precipitate retreat. The ordinary savage instincts of the female (*etiam in amoribus sæva*) are apt to return; and she has been known to sacrifice and devour her too long tarrying or dallying spouse."

The force of desire is exhibited in the extreme torture willingly suffered that the gratification may be tasted. All are familiar with the caterwaulings which frequently take place at night in the streets and back yards; but it may not be generally understood that those cries are elicited through pain during the act of copulation; from, in fact, actual torture to the she-cat. The intromitting organ of the young tom-cat has retroverted callous papillæ attached to the glans, which sharp spinous elevations cause the greatest pain to the female in the withdrawings of the organ during the copulative act. The same is the case, to a much greater extent, in the guinea-pig; and we are told that intense pain occurs from the same in the leopard, tiger, and the lion. We are also told, that when the queen-bee returns to the hive from her wedding-flight, after the single copulative act, the external orifice of her sexual apparatus stands open, from the torn and bleeding male copulative organ remaining sticking in the vagina, and partly protruding from it. "This eunuchism," says *Siebold*, "not unfrequently occurs in other insects, as in the beetles."

It is exhibited in the frog, where sexual stimulus induces a state of tetanic insensibility. It is exhibited when this power becomes exaggerated into satyriasis in the male, and erotomania in the female; when men commit rapes upon little children and aged women; when women invite famil-

iarity, and seek personal contact under every pretext; when in their plays and rompings their embraces are full of warmth, and their kisses humid with passion; when they lose all sense of delicacy, inviting men to sexual commerce by words and gestures and with passionate tears. It is exhibited when the sexual impulse incites to quarrels and dissensions among men; to duels, actions for divorce, murder, and even to sanguinary wars. "Nam fuit ante Helenam . . . teterrima belli causa." — *Horace.*

The force of sexual impulse is also exemplified in its power over even the saints. To conquer it, St. Benedict threw himself among thorns, and St. Peter of Alcantara cast himself into a frozen pool. St. Paul tells us, that "there was given me a sting of my flesh, an angel of Satan to buffet me (2 Cor. xii. 7). For which thing, thrice I besought the Lord that it might depart from me."

"The excited appetite for sexual gratification," says *Laycock*, "is as urgent as that for food under the stimulus of hunger. In both cases, we find the natural ferocity and timidity of animals towards man and each other increased and diminished with a force and uniformity truly remarkable.

"The desperate combats of the males, especially of gregarious animals, at the breeding seasons, is well known. Hunters and destroyers of vermin frequently make use of the generative odors as an irresistible lure of animals to their capture and destruction. By this means, the housebreaker silences and tames the most ferocious house-dog. The love of offspring acts with equal force on the female. The timid hare will attack the eagle in defence of its leveret. Instances illustrative of the force of this sexual faculty might be drawn from the history of every species of animal.

"These, and other mental changes consequent upon the generative impulse, do not take place simultaneously. The war among the males of gregarious animals terminates with

the business of conception, and before the birth of the young: at this time, the female, so far from being bold and quarrelsome, is most timid and cautious."

"The passion of love," says *Ryan*, "is as inherent in mankind as the function of digestion or respiration, *and must be gratified* as well as other wants. . . . When it is established at puberty, as it is in almost all persons, *it must be gratified*, and human interventions or laws cannot restrain or extinguish it, except in a very few, if in any instances."

The *universality* of this power is exhibited throughout all Nature. It is exhibited, as has already been remarked, in "the flight of the pigeon, the migration of the swallow, the annual arrival on our coasts of the shad, the herring, the salmon, and the cod, . . . the annual rush into the American rivers of the different tribes of migratory fishes that force their way from the ocean into the mouths of our rivers, and, ascending as near as they may towards the head-waters, find, at length, the suitable places for depositing their spawn. . . . In the spawning season, the salmon in the Oregon rivers are so abundant as actually to check, in a degree, the currents of the streams. . . . Thousands of millions of herring come from the shores of Spitzbergen and the Greenland ice. They divide into two immense streams; one of which proceeds downwards near the coasts of Europe, and the other by way of Labrador, and so south, until their instinct teaches them the time is at hand for securing the reproductive product. Now, this vast migration through many hundred leagues of trackless ocean is COMPELLED *by an instinctive force*, which is a part of, or at least attached to, the reproductive force. . . . That instinctive force it is which causes them to ascend to the shallows where the sun's vivifying light, and where the lessened temperature of waters, at the proper season, may perfect the evolution and exclusion of the embryo fishes.

"In all the bony fishes, the male is destitute of any copulative apparatus; and hence his only function is to follow

the female, in order to shed his fecundating secretion over the places where her germs are deposited: *and his voyage of hundreds of leagues is a compulsatory one, under the stimulation of that great reproductive life-force* ('instinct of reproduction' or '*desire*'). Once a year, he returns from his distant feeding-grounds, 'in number numberless' to perform this great act for the conservation of the genus.

"In like manner, the herds of buffalo on the Western prairies, ten thousand in a herd, wander from the internal provinces to the banks of the Saskatchawan, annually repeating the same scene; and so it is with the moose, the elk, the deer, bear, wolf, fox, and marten; it is so with the saurians, the chelonians, the ophidians, with every animal, and every vegetable."—*Meigs.* And thus we see that the aphrodisiac force, the "instinct of reproduction" or "desire," is a power intense, determinative, governing, and *universal.*

Touching the *force* and *effect* of this power, we will quote from *Lallemand, Acton, Ryan, Walker,* and others.

"There is," says *Lallemand,* "a constant state of orgasm and erotic pre-occupation, accompanied with agitation, disquiet, and *malaise,* and undefinable derangement of all the functions. This state of distress is seen particularly in young men who have arrived at puberty, and whose innocence has been preserved from any unfortunate initiation. Their disposition becomes soured, impatient, and sad; they fall into a state of melancholy or misanthropy; sometimes become disgusted with life; are disposed to shed tears without any cause; they seek solitude in order to dream about the great mystery which absorbs them, about those great unknown passions which cause their blood to boil; they are at the same time restless and apathetic, agitated and drowsy; their head is in a state of fermentation, and, nevertheless, weighed down by a sort of habitual headache. A spontaneous emission, or escape, which causes this state of plethora to cease, is a true and salutary crisis, which

for the moment re-establishes the equilibrium of the economy."

"It is a matter of every-day practice," says *Acton*, "to hear patients complain that a state of continence, after a certain time, produces a most irritable condition of the nervous system; so that the individual is unable to settle his mind to any thing; study becomes impossible; the student cannot sit still; sedentary occupations are unbearable, and sexual ideas intrude perpetually on the patient's thoughts."

As to the struggle which widowers, or those married men to whom access to their wives is forbidden, experience, as well also as the sufferings of widows and neglected wives, let us refer to the testimony of *Acton*, expressed and implied. He says, —

"My friend Dr. —— is constantly attending, for serious diseases of the womb, the wives of clergymen, as well as of dissenting ministers; in whose cases, for months together, marital intercourse is necessarily forbidden. He tells me that he has often been surprised at the amount of sexual suffering — the result of their compulsory celibacy — endured by the husbands of some of his patients, — men in every other relation of life most determined and energetic. Indeed, it is not wonderful that it should be so, if we consider the position of such men, who for years may have indulged with moderation the sex-passion, as we have described it, untrained to mortification in the shape of food or exercise, or marital intercourse; the secretion of perfect semen going on in obedience to the healthy *régime* of a married man's existence: conceive them, reined up suddenly, as it were, and bidden to do battle with their instincts. Religion and morality prevent them, more than others, from having sexual intercourse with strange women; intense ignorance on the subject of sex-passion in general, as well as misapprehension of the effects of disease of the generative organs, only aggravate their suffering:

conceive all this, and it is not difficult to believe that *affections of the brain may supervene.*"

"It is a fact," says Dr. *Ryan*, "that the genital function is as imperious in the human species, at a certain period of life, as the digestive, but ought to be exerted at all times with moderation, to preserve health and procreate healthful new beings. It is well known that rigid continence is seldom observed about the age of puberty, and for years afterwards, by the male sex, as the accumulation of the seminal fluid in its receptacles will excite the whole of the genital organs during waking and sleeping, and often terminate by spontaneous and involuntary emissions. These, when frequent, as well as all venereal excesses, *disorder the mind and body, induce sadness, ennui, disgust of life, extreme lowness of spirits, melancholy, and even loss of reason; whilst natural sexual enjoyment excites and exhilarates vitality, and improves the mental faculties and corporeal functions.*"

Walker tells us, that an ecclesiastic mentioned by Buffon forwarded him a memoir describing the torments of his celibacy, and the various sensations and ideas experienced by him during an erotic delirium of six months' duration. "This ecclesiastic, Mons. M——, presented all the attributes of a sanguine temperament, the premature development of which commenced at the age of eleven. Paternal despotism, the direction of his studies and affections, superstitious habits, Pythagorean regimen, fastings, and macerations, were all employed to change, to stifle, or rather to mutilate Nature.

"At the age of thirty-two, being then bound by a vow of eternal celibacy, he began to feel the action of the reproductive organs in a more lively manner; and his health was injured. At this period, he says in his own account, 'My forced continence produced through all my senses a sensibility, or rather an irritation, I had never before felt. I fixed my looks on two females, who made so strong an

impression on my eyes, and, through them, on my imagination, that they appeared to me illuminated, and glittering with a fire, like electric sparks. I retired speedily, thinking it was an illusion of the Devil. Some days afterwards, I suddenly felt a contraction and violent tension in all my limbs, accompanied by a frightful convulsive movement, similar to that which follows an attack of epilepsy. This state was succeeded by delirium. My imagination was next assailed with a host of obscene images, suggested by the desire of Nature. These chimeras were soon followed by warlike ardors, in which I seized the four bed-posts, made them into a bundle, and hurled them against my bedroom door with such force as to drive it off its hinges. In the course of my delirium, I drew plans and compartments on the floor of my room; and so exact was my eye, and so steady my hand, that, without any instrument, I traced them with perfect accuracy. I was again seized with martial fury, and imagined myself successively Achilles, Cæsar, and Henry IV. A short time afterwards, I declared I would marry, and thought I saw before me women of every nation and of every color. I at first selected a certain number, corresponding with the number of the different nations I had conquered; and it appeared to me that I should marry each of these women according to the rites and customs of her nation. There was one whom I regarded as queen over the rest. This was a young lady I had seen some days before the commencement of my disease. I was at this moment desperately amorous; I expressed my desires aloud in the most energetic manner, yet I had never in all my life read any romance or tale of love; I had never embraced, never even saluted, a woman; I spoke, however, very indecently to every one, without reflecting upon my sacred character; and I was quite surprised that my relations found fault with my proposals, and condemned my conduct. This state was followed by a tolerably tranquil sleep, during which I experienced noth-

ing but pleasure. Returning reason brought all my woes: I reflected upon the cause; I recognized it; and, without daring to combat it, I exclaimed with Job, "Cur data lux misero."'"

Buffon also cites an instance of an ecclesiastic whom he knew, who, in despair for violating the duties of his condition so frequently, performed the operation of Origen on himself.

Long before, St. Augustine had said, "Dura sunt prælia castitatis; ubi quotidiana pugna, ibi rara victoria;" and *Montaigne* observes, that "those of whom St. Augustine speaks have experienced a wonderful notion of temptation and nudity, in making it a question 'whether women at the general judgment will be raised in their own sex, or rather in ours, so that they may not tempt us again in that holy state.'"

St. Jerome describes a still more vivid picture of his own experience. "Oh, how often have I, when settled in the desert, in that vast solitude, which, burned up by solar heat, affords to monks a horrid habitation,—how often have I imagined myself to be, for a moment, in the midst of Roman delights! But I sat alone, because I was filled with bitterness. My deformed members abhorred the sack investing them, and my squalid skin endured the thirst of Æthiopic flesh. Daily tears, daily groans; and if at any time urgent sleep oppressed me in spite of repugnance, I slid my scarcely adhering bones down upon the naked ground. Of food and drink I will not speak. . . . I therefore, — I, who, for fear of hell, had condemned myself to such imprisonment, the companion only of scorpions and wild beasts, did often, in imagination, find myself amidst choirs of maidens! Pallid was I with fastings, and in a frigid body my mind burned with desires; the flesh being dead before the man, the fires of lust boiled up alone." And this is the confession of a father of the Christian Church! Man, be just to feebler powers!

In other cases, if free from monomania, man falls a victim to acute diseases, — apoplexies in particular.

The state of WOMAN under similar circumstances is not less severe. If love acquire a determined character in one whose nervous system is at all excitable, the state of virginity, at variance, as after puberty it is, with the impulses and intentions of Nature, becomes one of great suffering.

A stronger feeling of duty, and the emotions of fear, may lead her for a time to withstand the powerful impulse of Nature; but *that power* is *unceasingly operating.* Imagination is constantly filled with pictures of the happiness for which she longs; desire at last bursts through the restraints of reason. If she then redouble her efforts, and, by increasing attention and unrelaxed resolve, stifle the voice of Nature, this struggle immerses her in languor and melancholy. *Such a state must finally become morbid.*

Martin Luther, the great German reformer, proclaimed that chastity was impracticable, that it was opposed to the command of God, "Go forth and multiply," and to the laws of Nature; and that all who pretended to it were hypocrites. "It is no more possible," he observes, "to live without woman than it is to live without eating and drinking. When Eve was brought before Adam, he, full of the Holy Spirit, gave her the most beautiful and glorious of all names: he called her Eve, that is, 'the mother of all mankind.' Mark, he did not call her his wife, but the mother of all living men. This is the glory, the most precious ornament, of women." The author of the Reformation also "condemned the natural modesty and coyness of women, and held that such rebellion against the laws of God and rights of husbands should be punished." He repeated the advice, "If Sarah refuse, take Hagar." He furthermore says, "For my part, I confess that I cannot oppose the man who may wish to marry several wives; and that I do not think such plurality contrary to the Holy Scriptures." — *Memoirs*

of Luther, written by himself, translated and arranged by M. Michelet, 1836.

Walker tells us that "absolute continence consists in abstaining, owing generally to religious notions, from indulgences in love, although the individual feels the strongest desire for them; and, in general, *it is attended with the most deplorable results*. In such cases, the effects vary; but they generally are inordinate desires, taciturnity, moroseness, determination of the blood to the head, lassitude, and disgust at every thing abstracting the mind from the prevailing passion, incapability of averting attention from voluptuous images, and partial madness, succeeded by general insanity, and terminated by death."

The effects of abstinence on brutes is the same as on man. Dr. *Alfred Holloway*, member of the Royal College of Surgeons, England, tells us "that hydrophobia, or dog madness, is not caused by hot weather, or the seasons, or want of water, but simply because there are so few sluts kept. Where dogs wander free, as in Turkey and Australia, the disease of hydrophobia is totally unknown. What makes the matter worse is that sluts are taxed double what dogs are." The doctor also says "that all the carnivora, when confined away from their mates, are subject to hydrophobia."

"On the whole," says *Acton*, "I am of the opinion, that, as applied to adults, the academical laws which enforce celibacy are not beneficial. I think that the different colleges would do well (at any rate, partially) to abandon this vestige of monastic institutions, and not step in and prevent a man of intelligence marrying when he has arrived at adult age.

"It has been my lot to investigate the causes of several instances of clerical scandal; and I have reason for believing that the seeds of vice may have been sown in days when a man forbidden to marry, because he would lose his fellowship, and no longer feeling any incentive to exertion,

has been led away by his passions to indulge in a course of illicit intercourse, which he might have escaped, if, like others, he could have married. . . . Just in proportion to the degree of uneasiness caused by the presence of an excess of semen in the organs is the relief experienced after its natural, or, so to speak, legitimate emission. As has been already said, *regular and moderate sexual intercourse is, on the whole, of advantage to the system at large;* but the mere excitement of the sexual feelings, when not followed by the result which it should produce, is, as has already been said, an unmitigated evil. I believe that *much suffering and many ailments arise, in a great measure, from the repeated and long-continued excitement of the passions while the patient is unable to gratify them. I could mention many instances where I have traced serious affections and very great suffering to this cause.* I remember one very painful case, in which the patient's wife — to whom he was passionately attached — was the real cause of serious illness in her husband, by obstinately refusing to allow marital intercourse, for fear of having any more children (she had had several), although she otherwise kept up the semblance of familiarity and affection, and thus added very greatly to his sufferings."

Cabanis says, "In general, women support *excess* more easily, and *privations* with more difficulty; at least, these privations, when they are not absolutely voluntary, have, ordinarily, for women, especially in a state of solitude and indolence, inconveniences which they have but rarely for men."

The truth of this is fully attested by the lamentable frequency of hypochondria, convulsions, and madness among those who live in the cloister under a vow of perpetual chastity, — the baneful results of so anti-social and unnatural a mode of existence.

Nature, however, never sleeps; and few there are, even in the cloister, who can withstand her powerful influences.

A Neapolitan princess, *ex-Benedictine Henrietta Caracciolo di Forino*, in her book entitled "The Mysteries of the Neapolitan Cloister," "a book which has passed through several editions" ("New-York Observer," October, 1864), says, "A monastery contains all the vices of a city without its advantages or virtues. By resigning her flowing locks to the scissors, and by taking the vows of chastity, poverty, and obedience, a woman does not change her character; the only difference being, that, amidst the moral stagnation of the cloister, her virtues remain without legitimate exercise, while her frailties or her vices are nourished and developed by the continual struggle of a soured and rebellious spirit, at war with its cruel destiny." The Princess Caracciolo also assures us that "the frenzied passion of the nuns for priests and monks passes all belief; and that the jealousies and bickerings of the convent mainly originate in the perpetual competition of the young nuns to secure the monopoly of a young and captivating confessor."

Deny Nature as we may, repress her promptings as we will, she will not be appeased. If we insanely war upon her, and subdue her, we do so at our own cost: every triumph over Nature is destructive to the victor.

Health, the source of all happiness, rests upon a proper and moderate exercise of *all* the organs and functions of the body. Every part, be it flesh, bone, nerve, the arms, the legs, the eye, or the sexual organs, has its use. The eye demands light; the limbs, motion; the intellect, reflection; and our appetites and passions, their normal gratification: else will they infallibly become enfeebled and diseased. Each was designed for a purpose; and their due exercise is necessary to the harmonious workings of the economy. The sexual organs are subject to precisely the same laws as other organs of the body, and their normal exercise is just as necessary. They cannot be neglected without becoming enfeebled; in fact, they suffer the same injurious consequences that follow excessive use. In proof of this, let us

point to the fact, that a state of complete inaction of the sexual organs, as in those who have maintained a strict monastic life, is attended not only with involuntary emissions of the seminal fluid, but, not unfrequently, by a shrunken and flabby state of the intromitting organ, and disappearance of those erections, which, when vigorous, are a sign of power in the organ; and a softened and atrophied state of the testicles, with a shrinking of the internal spermatic organs.

That these things are so, — disagreeable though they may be, and disputed by *Acton*, — we have abundance of testimony. Time and space permit us to refer only to two or three writers of celebrity, in support of the truth of what we have stated. *Ryan* says, "A habitude of chastity is another opponent of erection, such as characterized the ancient fathers of the desert, and those, who, by fasting and other forms of church discipline, generally, but not always, extinguish certain desires implanted by Nature, but, in their opinion, contrary to that purity which should distinguish those who have made vows of chastity. *The sexual organs of such persons decay, like all other organs whose functions are not exerted.*" Dr. *Gall* observed in his Lectures, that "such clergymen of the Roman-Catholic Church as were considered in the odor of sanctity *were remarkable for atrophy of the genital organs.*" Nor is this all: restless and dissatisfied, the unhappy patient loses his serenity and active vigor of mind; becomes nervous, irritable, and dyspeptic; he is unable to fix his attention on objects he wishes to study; his intellect, formerly vivid and elastic, becomes turbid and sluggish; he is morbidly shy and bashful, avoids the society of his friends, and seeks solitude. These, and a multiplicity of other ills, are the punishments imposed by Nature for the sin of *disuse of the genital organs.*

We are taught by the moralist, that *self-denial* is our chief duty with regard to our passions and appetites; that

to mortify the flesh by self-denial in the gratification of the natural sexual impulse is a grand merit, and deserving of great admiration and praise; that the spiritual part of our being is vastly of more importance than the animal: and he calls upon us to exalt the moral and intellectual over sexual enjoyments, to check sexual appetites, and to find happiness in the so-called higher aims. Nature, however, demands, that all our organs and functions, our passions and appetites, have their due exercise and normal gratification. She demands that all her laws be complied with; she demands that the human body be reverenced, and that the laws of health claim the *highest* place in man's respect; she recognizes no spiritual part, nor allows any exaltation of the moral over the sexual enjoyments, or any departure from her plan with impunity.

Even Dr. *Acton* is constrained to admit the truth of this. Speaking of ill-health produced by continence, he says, "Of course, this state of health may arise from other causes. But those *many* instances in which debility does undoubtedly follow from this cause (continence) serve to show that a man *cannot with impunity disobey natural laws.* Sexual excitement is intended to be followed by sexual gratification; and the pent-up feelings, both physical and mental, *will pretty certainly revenge themselves on both mind and body, in a way equally unexpected and distinctive.*"

From time immemorial, the moralist has painted in all its horrors the evil of excessive use or abuse of the sexual organs; but no words of warning have ever come from his lips as to the equally destructive and pernicious exercise of self-denial and abstinence. Virtue and self-denial have been by him unconditionally praised; they have been the Alpha and Omega, the first, best, and chief points in all his exhortations; and SPERMATORRHŒA, the most miserable disease to which man is liable, has been left to establish itself with all its enervating, weakening, body-and-soul-destroying effects, and hurry to a premature grave thou-

sands and tens of thousands of the most promising youths of the country.

Rousseau is supposed to have been a sufferer from this infirmity; and so, also, *Pascal*. *M. Lallemand* met with several instances of the disease among Roman-Catholic priests, who rigidly adhered to the vows of celibacy; and we are told that Sir *Isaac Newton* was also a victim. He "is said to have lived a life of strict sexual abstinence, which produced, before death, *a total atrophy of the testicles;* showing the natural sin which had been committed. It is certain, that his matchless intellect declined after middle age; and it is even said, I know not with what truth, that he almost lost his mind late in life. It is a disease whose progress is greatly favored by study; and, as no human brain can withstand it, we may well believe that very many cases of premature natural decay have been owing to it. No man is safe from a greater or less degree of seminal weakness, who does not exercise his genital organs, or reproductive part, as duly as the brain, stomach, or any other organ." — *Elements of Physical, Sexual, and Natural Religion.*

Involuntary emissions of the seminal fluid occur at puberty, when an increased supply of blood and nervous influence is sent to the sexual organs, awakening sexual desires, which become very powerful; and these emissions are a sign that the sexual organs are fully matured, and a sign, too, and a *warning*, that sexual exercise is required. If this warning pass unheeded, and the demand of Nature be not complied with, *spermatorrhœa* is imminent; and, once established, the mental and bodily powers begin to decline, the constitution becomes undermined and broken, and gloomy hypochondria a constant attendant; until, at last, worn down in body and mind, the unhappy and miserable patient, through ignorance of the great sexual laws, sinks into the grave a victim of mistaken ideas of his duty to himself.

What is the cause of spermatorrhœa? *Continence*, and nothing else. What is its true remedy? Sexual exercise. This is the one and only remedy: all else will prove of no avail. All effort towards effecting a cure with *drugs*, or any other remedy, so long as Nature and Nature's laws are opposed and trampled on, will prove futile. A moderate (but not an immoderate) indulgence in sexual intercourse is the one and only great physiological remedy. This, combined with active exercise and amusements in the open air, cold bathing, with the mind free, and not overtasked, are the true indications of treatment; and, if adopted, bodily vigor and manly bearing, a vivid and elastic intellect, will take the place of lassitude and nervous weakness, melancholy, and impotency.

Even *Acton* is constrained, although distasteful to him, to say that, "Some there are, indeed, generally weak and unhealthy subjects, who cannot remain content without becoming subject to nocturnal emissions. When these are frequent, the sufferer may be, intellectually, in a worse plight than if he were married, and occasionally indulged in sexual intercourse. . . . Men studying at the universities come to me, complaining, that, although living a continent life, they have become such victims of emissions, that they are unable to pursue, for any length of time, hard or continuous intellectual work; their memories fail them, and their health is impaired. Under appropriate treatment, the health is rapidly regained, and the intellectual powers restored; but it does appear from these cases that celibacy is not unattended with danger to exceptional temperaments." He furthermore says, and very truly, that "it is, we see, the rule, that all men, old and young, who have led a continent life, as long as they give themselves up to study (but it must be severe and prolonged), and take proper exercise (it must, though, be laborious and fatiguing), will not be troubled with strong desires." He adds, and with much truth, "Nevertheless, when the great mental exertion necessary

to obtain a fellowship is over, *the sexual feelings will often re-appear with redoubled force; and then real distress, and even illness, may ensue. Self-control is followed by nocturnal emissions, which may so increase in frequency as seriously to impair the health; while the evil results are set down to previous hard work, and the patient is supposed to labor under indigestion, heart-disease, general debility,* &c.

"The whole being of man cries out, at this period of his life (adult age), for, not the indiscriminate indulgence, but the regulated use, of his matured sexual powers. . . . The marriage-state is the best *and most natural cure* for sexual sufferings of many a human being. It is in itself a state conducive, when well regulated, not only to increased happiness, but to long life. . . . My advice to all young men above twenty-five, who are in good health, is, to marry as soon as circumstances permit them to maintain a wife. Every thing tends to prove that the moderate gratification of sex-passion in married life is generally followed by the happiest consequences to the individual; and no wonder, for he is but carrying out the imposing command of the Creator in the first chapter of Genesis, — 'Be fruitful and multiply, and replenish the earth,' — in the way appointed by the Almighty himself."

Those who may object to our views on the score of their being opposed to the commonly-entertained notions of morality are at liberty to reject them. As we believe, so we write, and shrink not from what we conceive to be our duty, — of asserting the sacredness of the bodily laws in opposition to all preconceptions. The doctrine may be opposed by a host of prejudices, shaking as it does the very foundation of the theoretical morality between the sexes; but we call on all who would rigorously enforce abstinence or chastity on him who is wasting from the surface of the earth from its effects, to mark well our declaration, that a *moderate* indulgence in sexual intercourse is the *only* natural

remedy for spermatorrhœa, and the *only* remedy that will rescue the miserable sufferer from what is worse than death. The principles of physical religion enjoin due exercise of *all* parts of the body. The wants of our animal nature demand an equal and impartial attention with the other wants of the economy.

Touching these matters, a distinguished London writer remarks, that "chastity is considered one of the greatest of all virtues in woman, and in man too, though in his case it is practically less regarded. We have no longer voluntary nuns; but of involuntary ones there are myriads, — far more, in reality, than ever existed in any Roman-Catholic country. Millions of women pass a great part of their sexual lives, and immense numbers pass the whole, in total sexual abstinence, without any of the enjoyments of sexual pleasures, or the happiness of a mother's affections. For all this incredible self-denial, which causes more anguish and disease than any mind can conceive, they have for their reward the barren praise of chastity. But if we examine earnestly, and without prejudice, the real nature of this quality, which is so highly prized, we shall discover in it a totally different meaning.

"Chastity, or complete sexual abstinence, so far from being a virtue, is invariably a great natural sin. We are short-sighted beings, full of errors and false theories; but Nature is absolutely unerring; and it is only by consulting her, that we can gain a true knowledge of our virtues and vices. If we attend to Nature, we shall find that all our organs are subject to the same law of health, — the great law of normal and sufficient exercise. There is no organ in our body, nor any faculty in our mind, which, to be healthy (or, in other words, virtuous), does not require its due share of appropriate exercise. The sexual organs are subject to this law exactly as all others; and, whatever theories we form about them, Nature invariably rewards or punishes them, according as the conditions of their hea'th are observed.

She cares not for our moral code. Marriage has nothing sacred in her eyes: with or without marriage, she gives her seal of approbation to the sexually virtuous man or woman in a healthy and vigorous state of the sexual organs and appetites; while she punishes the erring by physical and moral sufferings. . . .

"For suffering woman, no one has yet raised his voice; no one has applied to her case the only true and scientific remedy, which is the keystone of female therapeutics, and without which all treatment or prevention of female disease is a vanity and a delusion. *The great mass of female sexual diseases*, even more than those of men, *arise from sexual enfeeblement consequent on the want of a healthy and sufficient exercise for this important part of the system. From the want of this, the green-sickness, menstrual irregularities, hysterical affections without number, proceed; and it is utter vanity to expect to cure, and, still more, to prevent, these miserable diseases without going to the root of the matter. It is a certain and indubitable fact, that unless we can supply to the female organs their proper natural stimulus, and a healthy and natural amount of exercise, female disease will spring up on every side around us, and all medical appliances will be powerless against the hydra.*"

The sexual organs are not only designed for the propagation of the species, but they afford, as has already been remarked, a natural and legitimate outlet for erotic passion, in its varying degrees of intensity, to discharge or expend itself; which imprisoned power, if retained, as in those chaste and unmarried, falls upon the excited and sensitive ovaries. These organs receive the entire shock, and suffer, in consequence, in the highest degree. They become diseased, and transmit morbid influences that affect the whole body, and are the punishments imposed by Nature for the sin of disregarding the great law of normal sexual exercise and gratification.

The sexual organs also afford an outlet for accumulated

secretions, which form in large quantity under the stimulus of erotic impulse, and which, like the secretion of tears from emotions of grief, or the secretion of saliva under the influence of appetizing odors, afford relief to the emotional congestion, but which, if retained, are absorbed into the circulation, and pass off through unnatural channels, producing derangements of health which are usually ascribed to the influence of other and more evident agents. Among the derangements thus produced may be mentioned herpetic eruptions, and other diseases of the skin, offensive exhalations of varying intensity from the follicles of the arm-pits. These exhalations are most powerful in individuals who have strong sexual powers or are continent. "The ancients said of a man who abstained from venery that he smelt like a he-goat. Very offensive exhalations from the genital organs are occasionally transferred to the axillæ. Aretæs says, that the froth on the lips of men affected with satyriasis is not unlike the smell of a goat under the influence of the œstrus veneris." — *Prof. Laycock.*

Thus we see that desire is a part of our nature, a force, an instinct, a great principle deeply implanted within us as a guaranty for the perpetuation of the species on the surface of the earth. It is cumulative in its character, and becomes a force of immense power, — a power intense, determinative, governing, against which the utmost strength of human nature becomes utterly powerless. It conquers judgment, and triumphs over honor, respect, and modesty. It intoxicates, frenzies, fascinates, enchants, bewilders. It penetrates into the innermost recesses, and consumes. It makes of man a brute, bestial and repulsive. It drives from the conscience of woman the last vestige of worship, respect, love, modesty, purity, and from her cheek the faculty to blush. It prompts her to immolation upon the altar of pleasure; and except judgment bid passion be humble, except there be the power to act, and a mind to regulate that power by decrees of wisdom, the senses are taken for

guides, folly for a helpmate; and the victim dances in fetters, wears them with impatient anguish, and will endure them no longer than till opportunity offers when they can be exchanged for the ignominious ones of vice. It makes her too wanton for restraint, and so inflames her, that no law, human or divine, can hold her within bounds. It is the most powerful agent in all the commotions of her system, — an agent, which, if long imprisoned and pent up within the constitution, and not allowed to discharge or expend itself through its legitimate channels, the sexual organs, cannot fail to prove highly injurious to the sensitive ovaries. It irritates them. Their nerves become highly exalted. Increased capillary action ensues; and the blood is summoned *to* and retained *in* them. *They become swollen, and highly sensitive; congestion and inflammation supervene; and the diseased ovaries transmit morbid influences which may seriously affect the whole body.*

Desire is natural, and, like hunger, must be appeased, or Nature revolts. "Gratification or disease inevitably follows." — *Walker.* If we insanely war against her, and subdue her, we do so at an overwhelming sacrifice. Triumph is destructive to the victor. Honor is saved; but health is lost. Respect and modesty are preserved; but amenorrhœa, chlorosis, profuse and painful menstruation, and hysteria in all its multiplied forms of headache, suffocation, globus hystericus, spasms, convulsions, &c., with signs of premature decay, supervene, — a poor requital, certainly, for that brightest jewel in woman's casket, continence.

Touching this matter, Prof. *Meigs* says, "That force (desire), you will not deny, *is capable of influencing the whole physical, intellectual, and psychological nature of the subject of it;* and, if even the conscience and the free-will must be admitted to be subject to morbid modifications, what hardness do you find in admitting likewise that morbid modifications, of a power so intense, so universal, so deter-

minative, of the whole constitution, might be capable of exhibiting itself in any or all the parts of the constitution in the strange and so-called incomprehensible phenomena of *hysterical* paroxysm?"

Again: he says, "*The whole spinal cord vibrates under the tension of the vital forces, roused to excitement by the reproductive and aphrodisiac power.* Cries, sobs, peals of immoderate laughter, tears in floods, stolid silence, perfect cataphora, spasm tonic and clonic, tetanoid closure of the jaws, the most extraordinary rhythmical movements of the symmetrical halves of the body (zygozoar spasm), rigid opisthotonos, sudden enormous meteorisms, profound coma, excessive secretion of limpid urine; all followed suddenly by the profoundest calm of the constitution, and a feeling of the sweetest complacency and amiability, — such are the symptoms which leap as it were out of profound repose, with a sudden and startling exaggeration."

Pliny says, "*Multa morborum genera primo coitu solvuntur*, primoque feminarium mense."

Tilt says, "We are persuaded that the *want of the appropriate stimulus to the ovaries*, which should promote healthy action, is often the cause of their becoming the seat of morbid affections."

Prof. *Ashwell* says, "The ovaries are subject to excitement before and during menstruation. The state of the Graafian vesicles, too, is liable to sudden change, not only as a natural result of conception, *but from ungratified sexual feeling.*"

Walker says, "Marriage ought, then, to succeed the celibacy of earlier life."

Harvey says that "many birds, insects, and fishes produce eggs without the intervention of the male, and that these are infecund; that such animals are often affected with disease, and perish." He also tells us that "the human female, *if deprived too long of the rights of Venus*, may become affected with *hysteria* or nymphomania."

Buffon says, "Marriage is man's natural state after puberty. This is, therefore, the period when the female, pressed by a new want, and excited to employ her faculties, should renounce that inexperience in love which was becoming in tranquil youth."

Kames says, "I have often been tempted to find fault with Providence in bringing so early to perfection the carnal appetite, while man, still in early youth, has acquired no degree of prudence nor self-command. It rages, indeed, the most when young men should be employed in acquiring knowledge, and in fitting themselves for living comfortably in the world. I have set this thought in various lights; but I now perceive that the censure is without foundation. The early ripeness of this appetite proves it to be the intention of Providence that people should early settle in matrimony. In that state, the appetite is abundantly moderate, and gives no obstruction to education. It never becomes unruly, till one, forgetting the matrimonial tie, wanders from object to object. It is pride and luxury that dictate late marriages: industry never fails to afford the means of living comfortably, provided men confine themselves to the demand of Nature."

Walker says, "As to young women, more especially, it is certain that the happiest effects must result (from early marriage) to those of an erotic temperament, excited by diet, inactivity, and every thing that can stimulate desire. When hysterism especially is caused by unsatisfied love, the advice of *Hippocrates* is as applicable as ever: 'Ego autor sum ut virgines hoc malo (chlorosi) laborantes, quam celerrime cum viris conjugantur, iisqua cohabitent; si enim conceperint, convalescent.'"

Hufeland says, "*Nervous* and *hysterical* women are often cured by marriage."

Prof. *Lanzoni* gives the case of a widow of thirty-one, who, after the death of her husband, was subject to attacks of epilepsy twice a month. "After she had for some time

followed medical advice without benefit, I advised her to marry a second time. The widow followed my advice, and made choice of a young and loving husband; and the epileptic attacks disappeared, and never returned."

On which *Walker* remarks, "In these epileptic convulsions of young women, women neglected, &c., many authors have not hesitated to recommend what is contrary to our notions of propriety. And to those that object, *F. Hoffman* distinctly says, 'I am aware that we ought not to do ill to produce good; but this is my answer: Of two evils equally inevitable, it is our duty to choose the least: others will perhaps add — and the least painful.' The same means, we are told, has often cured uterine cholics and nervous disorders. It is evident that the cure of nymphomania must consist in marriage.

"The fact that such diseases are the result of continence is Nature's declaration that marriage is the sole method of curing them; and *Pinel* justly exclaims, '*What can be done by medical art, which always looks at human nature independently of social institutions, if the immutable laws of fecundity and reproduction are perverted?*'

"When, therefore, a young marriageable maiden exhibits symptoms of the approach of any of these diseases, she should, if possible, be united to the object of her affections. Such symptoms then speedily disappear; health and happiness take their place; and there is preserved to her family and to society a being who may be one of their most amiable and valuable members.

"There are, indeed, young girls, observes a medical writer, 'sufficiently artful to counterfeit hysteric epilepsy and other affections for which they have heard marriage recommended as the only remedy, in the hope of being inducted into that state.' But, if they employ such a subterfuge, is it not proof of the intensity of their desires, sufficient to give us cause to fear, that, in yielding to the transports of their pas-

sion, they may shortly experience in reality the trouble and disorder they have counterfeited for the moment?

"Independently of morbid affections which marriage removes, it augments the energy of the sanguineous system; the distended arteries carry warmth and animation throughout the body; the muscles become more vigorous, the walk freer, the voice firmer, the demeanor unembarrased: in short, the sanguine temperament predominates.

"Of the greater chances of longevity possessed by married people, sufficient reason may be found in desires at once gratified and rendered moderate, in the activity required for the support of a family, in regular occupations, in the certainty of ever having a friend and confidant, in the endearing attention lavished upon each other, and in mutual succors during every affliction and infirmity.

"It must not, however, be forgotten, that manifest as may be the impulses of Nature, and great as may be the desire of complying with her wishes, several causes may oppose these, and neglect of them may still more surely prove fatal to the health or life of the maiden.

"Marriage would, for instance, be deeply injurious before the young woman is in condition to perform its functions. In our climate, young girls who are married before the age of twenty to twenty-five are ill adapted to sustain the crises of pregnancy, delivery, and suckling; beauty departs; enfeeblement and nervous affections ensue; and these impede the general growth. The limbs, consequently, are shorter; and, though the body is less affected as to development, the breaking-up is greater."

Touching the disastrous effects of continence, and the diseases thereby engendered, *Walker* says, "Chlorosis is frequently the first malady that makes its appearance. The catamenia, too, are frequently suppressed, occur at irregular periods, or are complicated by painful symptoms, — the consequences of the irritability of the reproductive organs (ovaries), produced by privation and inactivity.

"The stomach frequently becomes unable to retain any substance, however light. The nervous susceptibility often affects the heart; its movements, either by fits or permanently, becoming quick, irregular, and strong, and constituting palpitation. Frequently, also, this nervous predominance is felt throughout the organization; and syncopes form the prelude to what are called vapors (hysteria): sometimes, likewise, girls fall into profound melancholy, and abandon themselves to despair.

"If marriage be not permitted to terminate this state, injury fatal to life may be its consequence.

"In the extravagance of passion, suicide may be perpetrated. More frequently occur a general perversion of sensibility, and all the degrees of hysterism, especially if the maiden has strong tendency to love, nurtured by good living, an easy, sedentary life, the reading of fashionable novels, or exciting conversations with the other sex, while she is still kept under the eyes of a vigilant superintendent.

"An attack of hysteria is generally characterized by yawning; stretching; a variable state of mind, or extravagant caprices; tears and laughter without cause; fluttering and palpitation, with urgent flatulence; rumbling in the belly; a flow of limpid urine; a feeling as if a ball (globus hystericus) were rolling about in the abdomen, ascending to the stomach and fauces, and there causing a sense of strangulation, as well as of oppression about the chest, and difficulty of respiration, fainting, loss of sensation, motion, and speech, death-like coldness of the extremities, or of the body generally; also muscular rigidity, and convulsive movements; the patient twisting the body, striking herself, and tearing the breast; and this followed by a degree of coma, stupor, and apparent sleep; but consciousness by degrees returning, amidst sobs, sighs, and tears.

"Hysterical epilepsy may take place, the paroxysms of which are sometimes preceded by dimness of sight, vertiginous confusion, pain of the head, ringing in the ears, flatu-

lence of the stomach and bowels, palpitation of the heart, and, occasionally, of the aura epileptica, or feeling as if cold air, commencing in some part of the extremities, directed its course up to the head. During the fit, the patient falls upon the ground, and rolls thereon; the muscles of the face are distorted; the tongue is thrust out of the mouth, and often bitten; the eyes turn in their orbits; she cries or shrieks, emitting a foaming saliva; and she struggles with such violence that several persons are required to hold her. The belly is tense and grumbling; there are frequent eructations; and the excretions, particularly the urinary, are passed involuntarily. After a time more or less considerable, the patient gradually recovers, with yawning and a sense of lassitude, scarcely answers, and is ignorant of what has occurred to her." (Hysterical manifestations will be considered more fully in future pages.)

"These effects, we are told, have been observed in canary-birds, which sing continually, if, when separated from their females, they can see them without being able to reach them, and never cease till their distress is terminated by an attack of epilepsy.

"Other affections, as catalepsies, ecstasies, &c., frequently depend on the reproductive organs; and in Roman-Catholic countries, in former times, half-insane devotees were found among old maids thus affected, who became, in consequence, the fitting instruments of the artful propagators of ridiculous creeds.

"In some cases, the dominant passion interferes with the operations of intellect, and produces insanity. It has been already observed, that no one becomes insane before puberty, and that the period of the greatest reproductive ardor is that of the highest mental excitement.

"Accordingly, many young women become insane from erotic excitement, or from the love even of the beings of their own imaginations; for it is justly observed, 'Such are the wants of the heart in women, that they are caught

by and attach themselves to chimeras, when the reality is wanting to their sensibility.'

"The worst disease resulting from this cause (continence) is nymphomania, or furor uterinus. The women whom celibacy renders most liable to it have been observed to be of small stature, and to have somewhat bold features, the skin dark, the complexion ruddy, the mammæ quickly developed, the sensibility great, and the catamenia considerable.

"The very commencement of puberty is generally the time when the disease of which furor uterinus is the aggravated form begins to arise out of the temperament just described, and from various accidental causes, as loose reading or conversation, obscene paintings or engravings, and bad example arising from close intercourse with dissolute persons.

"In persons suffering from this disease (nymphomania), says Dr. *M. Good*, 'There is often, at first, some degree of melancholy, with frequent sighings; but the eyes roll in wanton glances, the cheeks are flushed, the bosom heaves, and every gesture exhibits the lurking desire, and is enkindled by the distressing flame that burns within. . . . The disease is strikingly marked by the movements of the body, and the salacious appearance of the countenance, and even the language that proceeds from the lips. They, indeed, use the most lascivious language and gestures, even invite men without distinction, and abuse them if they repel their advances.'

"The diseases also of the matrix (womb) and mammæ occur chiefly amongst unmarried females. Old maids are especially liable to these diseases, because their organs have not fulfilled their functions. Scirrhous indurations and cancers often form in these parts, especially at the final cessation of the catamenia. Hydatids also form in the matrix or ovaries, so as to resemble pregnancy"

Sufficient has, we think, been adduced to support our

position; and we repeat the declaration, that absolute privation in those whose feelings and passions are strong, and its sudden denial to those accustomed to its use, or where the act is imperfectly performed, is a *fruitful and common source of a multiplicity of ills peculiar to women*, but which have been usually ascribed to other and more prominent agents. To this cause, and to this cause alone, we sincerely believe, are very many of the ills of young unmarried females attributable. Amenorrhœa, chlorosis, profuse and painful menstruation, leucorrhœa, and hysteria in all its multiplied forms of headache, suffocation, spasms, convulsions, premature decay, &c., are oftener referable to privation of sexual stimulus in young, vigorous, unmarried females than to any other cause.

Whether it is *natural* that privation should be a cause of disease, our readers must now decide for themselves. Our views have been given, and our belief is easily arrived at. That it *is* a cause, — at any rate in these days of improper physical, moral, and mental training; in these days when the cultivation of the mental powers, of the sentiments and passions, the refinements, indulgences, luxuries, and the character of social intercourse; in these days when the want of light, pure air, proper food, and healthful exercise in the open air; when the uninterrupted rounds of excitement consequent upon balls, parties, the opera, &c., with the liability to cold imposed by these amusements; when protracted vigils sacrificed at the shrine of folly, luxury, and fashion, — contribute only to break down and weaken the powers of the system, and render the *ovaries*, already preeminently disposed to disease by the monthly act of ovulation, incapable of warding off the deleterious influences of inordinate desire incited by the influence of luxury, indolence, sentimental reading, the perusal of prurient books, passion-stirring pictures, statues, &c., obtruding their seductions on the youthful imagination, and provoking flights of vivid fancy, and arousing impulses of desire, and yearnings

after unknown gratifications, — we believe *there can be no question.*

When the want of light, pure air, proper food, and healthful exercise, has lowered the powers of the system, and with it the capability of the ovaries to ward off morbid stimulus; when luxury, indolence, sentimental reading, close proximity to the opposite sex, and intricacy of situation, incite to unknown gratifications, — the impulse of desire must be gratified, or Nature revolts. The impulse, the force of which we have already seen, must have vent through its legitimate and natural outlet, or the ovaries receive the entire shock. Gratification or disease — one or the other — inevitably follow. There is no escape.

Continence, then, engenders disease. Disease demands judicious application of remedies. But what avail remedies while the cause is still operating? What is the cause? Continence. Intercourse, only, has the power of removing it. Desire then is satisfied, the mind is tranquillized, the regular action of the vital powers restored, and morbid symptoms vanish like the dew before the rising sun. This is the only remedy. All else will prove of no avail.

How overwhelmingly important, then, THAT CORRECT NOTIONS SHOULD BE ENTERTAINED AS REGARDS PHYSICAL, MENTAL, AND MORAL TRAINING! — A PHYSICAL TRAINING, THAT THE OVARIES MAY BY THEIR STRENGTH AND TONICITY WITHSTAND THE PROMPTINGS OF DESIRE WITHOUT ITS PROVING A STIMULUS TO DISEASE; a mental and moral, that the young woman may be the arbiter of her own happiness, as far as human beings can be so, and that she may walk in uprightness, and prove a living stream of comfort and delight.

MARRIAGE LATE IN LIFE is not an unfrequent cause of the disease under consideration. The ovaries, having been debarred their proper stimulus when they most needed it, become somewhat accustomed to the privation: when the

stimulus is at last presented, it over-excites, and engenders a morbid impression.

"Change of Life" is another cause of this disease. The periodical congestion of the ovaries which has lasted for so many years does not always, nor commonly, subside at once. It generally continues for a longer or shorter time after the menstrual flow has ceased. The ovaries, not being relieved, as they have been accustomed, by the flow, become engorged, and liable to inflammatory action if this condition be not warded off by appropriate treatment.

This crisis in female life is particularly dangerous, both to those involuntary nuns of a society overstocked with women who have impatiently borne the burden of their virginity, and also those who have given themselves up to excesses of sexual indulgence.

MORAL CAUSES.

There are certain other exciting causes of this disease, which, for want of a better name, have been called *moral causes*. They are not tangible, it is true; but they are too important to be passed over in silence. When influences tend to exaggerate the impulse of unsatisfied desires, — desires, which, though natural in themselves, have been pampered by bodily and mental inactivity, and unduly excited by thoughts, books, pictures, conversation, and close intercourse with dissolute persons — burning desires, which, though new and unanticipated, yet need little interpretation, and are so urgent and imperious, that if not quenched by their natural and legitimate satisfaction, and the organs which prompt such desires relieved of the accumulated fluids by which they are placed in a state of turgescence, — Nature and instinct are not slow in pointing out means of gratification and relief, that are ruinous and destructive to the constitution, impairing the nervous system, and the general strength and tonicity of the muscular tissues.

As soon as puberty is accomplished, instinct leads youth to satisfy desire; and if no object is cast in the way, and they are unchecked by timidity or other considerations, they fall into that *solitary indulgence* which ruins more constitutions than enters into the conception of the uninstructed.

The habit is not confined to any one or particular class. It is adopted in all ranks of society, and its pernicious and destructive influences are seen on every side in the weakened and enervated, worn-out and broken constitutions that surround us. It is ordinarily contracted at puberty, when an increased supply of blood and nervous influence is sent to the sexual organs, which awakens sexual desires that become very powerful. Once formed, the habit increases; and the more it is indulged in, the less likely is it to be abandoned. Totally unconscious of the consequences it may lead to, the unhappy victim surrenders herself or himself to an increasing indulgence, until, at last, it becomes master of the individual, and almost irresistible.

The extent to which the practice may be carried is almost incredible. *M. Lallemand* tells us, that some of his patients confessed that they had been in the habit of indulging in it from ten to twenty times daily, and, too, for a long period of time.

Health consists, as we have already seen, in a due performance of the function of all the organs of the body. We have also seen that any undue exercise of a part, as in venereal excesses, is sure to lead to a disturbance in the economy. If, then, from an extravagance in or an undue exercise of an allotted or allowed privilege, an inflammatory action is induced in the menstrual organs, with physical weakness, and a multiplicity of other ills which arise from an impaired nervous power and disordered circulation, how much more severe must be the consequences that arise from an unnatural exhaustion which transpires from an absolute stretch of an overwrought imagination; from, in fact, ideal pleasures! The roses vanish from the cheeks;

pale and sallow tints take the place of brilliant hues; the skin becomes rough; the eyes become dull, and surrounded by a livid circle, and the lips colorless. Weakened and enervated, the unhappy victim becomes prematurely old and haggard. The imagination becomes perverted, and irresolution, timidity, and shyness become increased to an alarming degree. In the male, if the depravity be not arrested, nocturnal emissions supervene, following which, in the further progress of the complaint, diurnal involuntary seminal loss takes place, until, at last, the constant and fatal drain induces an utter exhaustion of the vital powers. The countenance becomes waxy and pale, the frame emaciated, the sight weakened, the whole nervous system enfeebled and unstrung, and his woes in the depths of his physical impotency and agony too deep for tears. In the femala, local affections of the organs of reproduction ensue, — acrid leucorrhœa, ulcerations of the vulvo-uterine canal, falling and various diseases of the womb, and last, but not least, *subacute inflammation of the ovaries.* She loses her serenity and active vigor of mind. Her intellect, formerly vivid and elastic, becomes turbid and sluggish. She is unable to fix the attention on objects she wishes to study; and mental insignificance takes the place of literary excellence, until, at last, as sometimes occurs, nymphomania, or furor uterinus, supervenes, which may terminate life amid delirium and convulsion.

We will here introduce the opinions and experience of others touching this matter. It is a subject of vast importance, and a painful one; but it must not be passed over in silence. A vice so wide spread and so deplorable should be held fairly up to view; and if, by so doing, it be the means of saving even one human being from its soul-and-body-destroying influences, or of rolling aside in any single instance the curtain of blindness which covers its besotted victims, we shall be repaid for our labor.

"My own opinion is," says *Acton*, "that it is not so easy

a matter to give up the practice: when once the vile habit becomes confirmed, the young libertine often becomes but a debauched old man. I have known lads and men of strong energy of will, who have, by their own confession, failed, until they were aided by other remedies, which I shall hereafter describe. Want of resolution is, of course, one cause of failure; and, where there is hereditary predisposition to strong sexual excitement, the task is often too great without good counsels and sound medical advice.

"If the struggle is severe for a youth to extricate himself from these vicious propensities, experience teaches me that it is very doubtful, if, when the practice has been much indulged in, the physical frame will ever be wholly built up again: the haggard expression, the sunken eye, the long, cadaverous-looking countenance, the downcast look, which seems to arise from the dread of looking a fellow-creature in the face, may be carried to the grave. I admit that care and attention may do much in remedying the intellectual wreck which we notice in such youths. If we can save the mind at all in the severer forms, we shall do well; but, for a series of years, the intellectual faculties are enfeebled. . . . With *Lallemand*, I could speak of the many of high intellectual attainments, and the foul blot which has been made on the virgin page of youth; of shocks from which the youth's nervous system will never, in my opinion, be able to rally; of maladies engendered, which no after-course of treatment can altogether cure, although surgery may do much to alleviate symptoms as they arise."

Touching the mental anguish arising from the horror and remorse which the patient experiences, *Tissot* says, "When the veil is removed, the picture of their conduct is brought before them in all its hideousness; they find themselves guilty of a crime of which divine justice wishes not to supersede the penalty, and which it punishes by death; of a crime reputed as a great crime even by heathens."

The distress cannot be alleviated by the sympathy of

others. Shame obliges the patient to hide his crime from every one, till some unbearable torment force a revelation. Many, indeed, *die* because they have not been able to muster courage to reveal the cause of their misery. I often receive letters saying, "*I would rather die than appear before you after such an avowal.*"

Feeling that he must be held in detestation by society if his disgrace were known, the idea pursues him incessantly. "It appears to me," says one of my correspondents, "*that every one reads in my face the infamous cause of my disease, and this idea renders society unbearable;* and, what is most frightful, I have no pretext of justification or motive for consolation."

"That *insanity* is a consequence of this habit," says *Acton*, "is now beyond a doubt. The connection between insanity and extravagant sexual desire is alarmingly close, as appears from many modern investigations, especially with regard to the central portion of the cerebellum." *Deslandes* has remarked, that, "in proportion as the intellect becomes enfeebled, the generative sensibility is augmented."

As regards the *class of persons affected*, "It might be expected," says Dr. *Ritchie*, "that these cases would chiefly occur in members of families of strict religious education. Experience supports this expectation; and facts also show, that those who from this cause become insane have generally, to all appearance, been of strictly moral life, and recognized as persons who paid much attention to the forms of religion. As will be afterwards more fully stated, it is frequently observed, especially in the acute attack resulting from this cause, that religion forms a noted subject of conversation or delusion."

"This destructive habit," says Dr. *Ryan*, "is, unfortunately, too common in many schools, colleges, and in all places in which a number of youths or unmarried persons are congregated. 'It is the contagion of scholars.' How necessary, then, it is for parents, and those who have the

guardianship and instruction of youth, to preserve them from contamination, and to watch them closely! They ought never to leave them alone, or in company with older children, companions, or servants. What a responsibility is imposed upon instructors, who really possess the most powerful influence over the welfare of a large portion of the present and future generations! They ought never to allow two children, even of a tender age, to sleep in the same bed, but prevent it without assigning any reason; or two scholars to remain too much together, or to be constantly in company with each other in lonely situations. In fine, parents, or those who have the charge of children, ought to observe most carefully the changes in the physiognomy, which result from the baneful, unmanly, and inhuman habit under consideration.

"Every effort should be made to suppress this unnatural, sinful, and degrading vice. The best means of prevention are moral restraint, and physical exertion taken to fatigue, amusements in the open air, active employment, moderation in diet, temperance in drink, and a proper use of sedatives at bedtime. The perusal of all immoral works, and the inspection of immodest pictures, should be avoided. But, of all means, religion is the most effectual (?) in restraining and correcting this vicious habit."

"On the whole," says Dr. *Acton*, "I am disposed to think, that, in most *public* schools, the feeling is strongly against these vile practices. Still, even now and then, facts leak out, which show, that, even in these establishments, evil influences sometimes find their way; and the destructive habit may take root, and become common. In *private* schools, however, which are, to a great extent, free from the control of that healthy public opinion, that, even among boys, has so salutary an effect, there is too much reason to fear that this scourge of our youth prevails to an extent which will not be known with any certainty, till, years hence, the sufferers from early vice are seeking medical relief, too often, alas! in vain."

Even undue incitation of the sexual system from conversations on love, close proximity to the opposite sex, improper books, pictures, &c., without any manipulation or interrogation of the secret sources of pleasure, is most deleterious, and a cause, very frequently, of the disease under consideration. "If, as we are told, birds lay eggs under the influence of impressions calculated to promote certain feelings, without the congress of the male bird, may we not justly infer that certain feelings of the mind are, in women, *sufficient to stimulate the organs of ovulation?* We see the influence of such modes of excitation on man,—that they promote the secretion of seminal fluids; and we may therefore infer that they produce on woman an analogous effect. When we consider how much of the lifetime of woman is occupied by the various phases of the generative process, and how terrible is often the conflict within her between the headlong impulse of passion and the dictates of duty; we may well understand how such a conflict must re-act on the organs of the sexual economy in the unimpregnated female, and principally on the *menstrual organs*, the acknowledged centres of the sexual system; causing an orgasm, which, if often repeated, *may be productive of inflammation of those organs, and characterized by the development of hysteria.*"—*Tilt.*

Although a delicate matter to touch upon, it is of vital importance, being, in our estimation, *a very frequent cause of the disease that we are considering.*

Let girls advancing to womanhood be told of habits and practices that fail not to lay the foundation of multiplied ills. Let mothers descend from their austere pedestal, and close up the distance between mother and daughter, and make her a friend and companion, that youth may profit by the experience and advice of maturer years. Let her be warned against this destructive habit, and let her be instructed in the laws of her sexual nature. Leave her not to her own devices, in utter ignorance of the way to guide

this new power, which, at puberty, sways, and was meant to sway, the whole being more absolutely than almost any other feeling. Make no mystery of the sexual part of her frame, its promptings, and their power; its diseases, and how induced. Let her learn to reverence and study the laws of her sexual economy, which, if forgotten, return on her own head. Hide not from her the great purpose of her existence, — the ends of marriage, — and how this purpose is thwarted, and herself laid prostrate in powers of body and mind, a victim of irritable complaints, and a martyr to pain and suffering, that may prove the curse and bane of her entire existence; and that, if practices which have entailed a disease that has wrecked the fair vessel of female charms are persisted in, it is not in the power of Æsculapius himself to refit the shattered bark, or of the Sirens, with all their songs and wiles, to conjure its battered sides from the rocks, and make it ride the seas in gallant trim again.

We have said, that, when once formed, the habit increases; that it becomes master of the individual, and almost irresistible.

Is there any cure? Can the depravity be arrested, and the body and mind restored to its normal condition?

Why was the indulgence adopted? What induced it, but the overpowering want of natural sexual exercise? and so long as this cause is still operating, so long as no natural outlet be given for the passions, how little benefit can be even hoped from any medical or surgical interference! The true and only remedy (for it is the great physiological one) consists in conforming to the universal law of normal sexual exercise, as much required by the sexual as any other part of the economy. Indeed, what more rational and effective remedy, what more natural and obvious remedy, can be suggested for either sex, for checking unnatural indulgence, than the supply of the normal gratification, which, had it been attainable, solitary indulgence would never have been resorted to, nor bodily and mental disease induced! Lan

guishing Nature demands her natural sexual stimulus. If denied, she revolts, and, as a just punishment, prompts to practices ruinous and destructive in the extreme. If complied with, she is satisfied; pernicious habits become abandoned, and exhaustion and debility gradually disappear; nervous weakness fades away; gloomy hypochondria and mental confusion vanish; health, spirits, and self-confidence return; and the unhappy sufferer once more takes pleasure in the society of mankind.

Well aware are we, that ignorance and superstition, influenced by the common moral prejudices on these matters, will cry out loudly against any such doctrine; but we call on them to bear witness to the declaration, that clear and demonstrable laws of normal exercise of *every part* of the economy will ere long be recognized and obeyed; and, until recognized and complied with, suffering humanity must go down to the grave, as they long have done, with ample reason for cursing the wisdom, the religion, and the common sense of those who would deny them the *only* remedy that has the power of saving them. The doctrine is a *true* one, and the world must ere long admit it. What says a distinguished writer? "I know the host of prejudices that will oppose the recognition of sexual intercourse as the great remedy in sexual enfeeblement in women; but I am absolutely certain, too, that it will be recognized. It is in vain that we strive against the decrees of Nature; we may exhaust ourselves in forming unnatural theories, and in forbidding any attempt to compare them with natural laws; we may be content that the subject should continue shrouded in mystery, and that young women should be racked and tortured by innumerable diseases, rather than allow the least departure from our prejudiced schemes; we may persecute and anathematize all those poets, philosophers, and physicians, who, horror-struck at the amount of sexual misery, endeavor to find a new path out of the labyrinth: but not one jot, not one iota, does Nature move for

all our vehemence; and she will force us at last, exhausted by our sufferings, to confess our errors, and recognize her infallibility. I do not see how any man of common sense, far less a scientific physician, can fail to see that Nature intended that the sexual organs should be used as soon as they are fully developed. The sexual passions are strongest at that time; and we might foresee, with certainty, that, if the natural intentions be defeated, disease and misery must result. It is clear, too, that, for diseases arising from such a cause, the natural and obvious remedy is to supply the normal exercise; the want of which occasions the disorder. In the case of genital enfeeblement in man, *M. Lallemand* has shown clearly by the results of his treatment, as well as by his general reasoning, that sexual exercise is the true, natural, and efficient remedy; and his views have been adopted by a great many of the most enlightened medical men in this country (Europe), and must eventually be accepted by all, however much they are opposed by Christian prejudices." — *Social Science.*

Touching this matter, *Walker* says, "When all the thoughts of a young man begin to be occupied by the desire of pleasure, every hour that passes adds to desire; almost every individual of the opposite sex seems fascinating to him; his heart palpitates when they approach; and a flame seems to fly through all his members. Even during the night, the physical condition of the external organ necessary to reproduction annoys him; and his sleep is often disturbed. *Gratification or disease inevitably follows.* Of the young woman, however modified her affections, *the same is true.*"

For the benefit of those for whom we are writing, we will introduce here suggestions for *guidance*, made by *Ryan* and *Walker*. "It is important to state," says Dr. *Ryan*, "that the baneful habit of exciting the organs under consideration often arises *from disease, or a morbid state of remote tissues*, at an age when amorous impulse cannot exist; and this self-abuse is *too often continued until*

the adult age. Infants at the breast, whose sexual organs are so imperfectly developed, and who can have no sexual desire whatever, often contract the habit of frequently touching these parts. This apparent phenomenon is easily explained by physiology. The sexual organs are lined by a mucous membrane similar to that which covers the lips, throat, intestine, and lungs; and irritation in any point of this membrane may derange every part of the body, which is covered or lined by a continuation of it. There are few infants who do not suffer from irritation in some part of this membrane, induced by numerous causes, as teething, improper food, or cold; and the effect will be irritation or inflammation in the eyes, ears, nostrils, throat, lungs, stomach, and bowels, and also in the genital passages, as every one of these parts is covered by mucous membrane. But the habit of touching the genital organs, acquired in infancy, often continues to the age of puberty, when these parts become more developed and highly sensitive, and render it almost inevitable. In other, and, unfortunately, in most cases, this habit is learned from example or intuition; more especially by allowing grown persons or adults to sleep with children, or by the depravity of some who have the care of children and youth, as servants, ushers, or tutors in schools or families, or those contaminated by it."

Walker says, "At puberty, life is superabundant; that superabundance is employed in the reproduction of itself; and, in so doing, the passions and the will are engaged. Accordingly, the habits contracted at this age are very powerful, and are intimately connected with the future health or disease. Hence, at this age, the importance of

USEFUL GUIDANCE.

"Every effort ought, of course, to be made so to direct young persons, that they may be least exposed to the evils that now beset them.

"Those who are too robust should be occasionally confined to a meagre diet; and all the exciting substances which accelerate precocity should be carefully shunned; such as chocolate, ragouts, meat suppers, and vinous or spirituous drinks. For the same reason, should be avoided retention of urine and constipation, which attract the blood towards the parts whence it is desirable to withhold it.

"The habit of cleanliness, practised from the earliest youth, becomes a valuable corrective at puberty.

"An important subject of observation is clothing, and the necessity of habituating young people to cold, particularly with regard to the reproductive organs. 'Trousers,' it is observed, either very warm, or lined with woollen stuff, are highly improper, both on account of uncleanliness, and consequences which it is desirable to prevent.

"Young persons should not be permitted to lie on down beds; nor sit on soft chairs, to which rush or wooden-bottomed ones are greatly preferable. Neither should they be allowed to remain in bed longer than requisite, or to lie down needlessly on couches.

"While the languishings of love spring up in soft repose, strong exercise extinguishes tender sentiments, and at the same time produces a revulsion to the other organs. The history of the goddess of hunting is a philosophical allegory, which expresses the great truth, that bodily exercise extinguishes all violent disposition to pleasures. 'Otia si tollas periere cupidinis arcus' is a sentiment that ought never to be forgotten.

"Care should even be taken to prevent young persons habitually leaning against any thing, so as not to have all their muscles in action. . . .

"The directing of the habits is an important branch of education. Ignorant mothers know not how frightful those habits are which they first teach by tickling. It is a modification of this, leading only to degrading sensuality, which the effeminate Indians practise under the name of

'*shampooing*,'—a kind of pressing and kneading of the naked body when they come from the bath, which is performed by the delicate hands of females instructed in the operation, and which leaves those subjected to it in a state of voluptuous debility inconsistent with all manly faculties. This was practised by degenerate Romans, among whom women, on quitting the bath, were shampooed by slaves for the avowed purpose, that, by means of the sympathy between the skin and the reproductive organs, certain influences might be excited. And it is the beginning of this art that senseless mothers and servants practise when they tickle children.

"It is the duty of such persons, on the contrary, even to prevent children from sitting with their knees crossed (a position particularly injurious), and from playing at such games as riding upon sticks, see-sawing, striding across the edge of a chair, or over the knees.

"The back, also, and spinal marrow, should never be directly exposed to the fire, as that has a powerful influence on the reproductive system. The best means of warmth is exercise; and even additional clothing, which may be thrown aside when no longer requisite, is preferable to fires.

"As to flowers, their odor causes a shock to the sense of smell, which infuses throughout the body a voluptuous feeling.

"In regard to particular pursuits, the guide should choose those best adapted to the young person's taste. Sedentary professions, requiring more skill than strength, should be left to women, who would perfectly succeed in them; while a vast number of vigorous men must then be employed in labors more worthy of them.

"Cold ablutions diminish the sensibility, which must otherwise do mischief; and swimming and exercise in cold water are remarkably useful.

"If a young person gives unequivocal signs of excessive sensibility, all books depicting exaggerated sentiments must

be withheld. The reading of fashionable novels is sure to falsify the judgment of the young by the most absurd exaggerations, to render their duties distasteful, and even to predispose to disease.

"'The classics,' observes *Friedlander*, 'can be given them only in extracts, if we are desirous that they should meet with nothing that we deem obscene.'

"Even the study of the fine arts may render the imagination too active. Of these, drawing is the least objectionable; and music, being in the language of passion, is the most dangerous, especially music of the more impassioned and voluptuous nature.

"A better means of discouraging the passions is the *cultivation of the intellectual faculties.* Great advantages would result to a young girl from the study of history, geography, and the various branches of natural history; pursuits which at once dissipate the passions, and are useful to rural economy, and many of the arts of industry.

"For the sake, indeed, of the powerful influence which maternal education has on progeny, all the faculties with which *reasoning, calculation, the mechanical and various positive sciences*, are associated, should be in some degree employed; and on such subjects habitual exercise of the memory would usefully engage much valuable time, and prevent all injurious use of it.

"In fine, every occupation of the mind likely to produce or foster emotions ought to be proscribed.

"On the important subject of example, it need scarcely be said, that young persons are sure to observe and interpret any loose joke or indecent language that coarse-minded people utter before them.

"Not less carefully ought the example of improper conduct to be guarded against. *Several young persons should never be suffered to sleep together in one bed, nor even in close vicinity of domestics.*

"For similar reasons, education in boarding-schools is

highly dangerous, especially at this period. Intimacies spring up between pupils nearly of the same age: they repose confidence in each other as to their secret thoughts; and they endeavor to verify the conjectures they have formed. Meanwhile, some other friend in the confidence of this *tugend-bund*, who has returned home, and seen the world, visits the unfortunates still remaining at school, when a speedy disclosure takes place of all her discoveries made as to the subjects they have so often discussed; and, to show that her generosity is commensurate with her new importance, she occasionally supplies those works whose amorous pages have been kindly made known to them by the most positive interdiction of teachers. Hence the barriers raised up by modesty are surmounted, and depraved habits contracted.

"But though a boarding-school is a hot-bed of vice to all who have reached puberty, that is far from being the time for introduction to the world and to the other sex; and retirement among elder female relatives is then the wisest mode of life. Theatres should be carefully avoided, particularly representations in which the softer passions are excited, or seductive music is the principal portion.

"When, in spite of the best management, a young girl exhibits change or irregularity of character, becomes subject to sighs and tears, of which no cause is apparent, and betakes herself to solitude, then *muscular exercise sufficient to produce slight fatigue*, agreeable society, and powerful diversions, are means that must be adopted.

"It is equally foolish and dangerous in parents, and others charged with the education of girls, to try to conceal from them all knowledge as to the results of the position in which they are placed by the circumstance of nubility; for girls, in spite of watchful vigilance and every obstacle, are soon enabled by natural instinct and by unremitting observation to instruct themselves in those false notions which are most likely to be followed by fatal results.

"Love, assuredly, such as it is described in the mischievous trash called fashionable novels, or even as artificial society often presents it, is at utter variance with the plan of Nature. It is denaturalized and factitiously exalted by the obstacles which it encounters from prejudices relative to birth, rank, and fortune, and by the want of employment and of objects of real interest among the easy classes. Without such obstacles, love might produce happiness instead of delirium; might be the embellisher, not the occupier, the consoler, not the arbiter, of life.

"To the youth, the argument may well be employed, that it is his interest to restrain his desires, even though he may be capable of reproduction; that he must learn to earn the means of living, before he increase the number of those requiring it; and that, moreover, his sole object in the world is not to find food and procreate his species without leaving any trace of honorable advancement behind him. Finally, other sentiments may be awakened, — ambition, dignity, and the universal respect of his fellow-men.

"So, also, it is the duty of her guide, when the maiden has reached a certain age, to explain to her the general nature of the sexual relations to which she is destined; to put her upon her guard against the disguises which passion assumes, and the stratagems it employs; to place it, on the contrary, before her in the character it must assume in marriage; to make her aware of the modifications that possession produces in the ardor of mankind, and the certainty of its being eventually calm and moderate; and to teach her to control her affections till they are in accordance with those proprieties upon which the conduct of life is made to depend.

Unluckily, experience too often presents obstacles to unions passionately desired. In such a case, if the maiden cannot be united to the object of her attachment, the nervous system must be weakened, and the muscular system strengthened, by a more active mode of life, — by long walks, and as

much bodily exercise as possible; beginning always by gentle tasks, and gradually imposing upon herself others that in a greater degree exercise the organs.

"There are, however, youths and maidens whose temperaments are, on the contrary, lively, fickle, and incapable of attachment, and with whom, consequently, means of a directly opposite tendency must be employed; all those, in short, which are deprecated in the former case."

In preceding pages, we have given what we conceive to be the most frequent exciting causes of inflammation of the menstrual organs.

Among the least frequent exciting causes may be mentioned, falls on the feet, knees, or upon the sacrum; horseback riding; dancing; long and fatiguing walks during or immediately after the menstrual period; great muscular effort, as in lifting or carrying heavy weights. We have known the exercising with dumb-bells to bring on this disease. Tight dresses, corsets, and the various bands and strings around the waist, are all occasional exciting causes. A first confinement, especially when there is a disproportion between the child's head and the pelvis of the mother, and over-lactation, are other occasional causes.

Retention and suppression of the menses are occasional exciting causes. Both, as we have seen, are prominent sequences of this disease: they may also be causes. Occlusion by the hymeneal membrane, or of the uterine aperture; or a blocking-up of the passage of the vagina from the presence of tumors; gluing together of the mouth of the womb after difficult parturition, or from imprudent cauterization of its internal surface, by which its opposing surfaces in healing become grown together,—these become causes, by bringing about retention; there being no exit for the secretion that has taken place. The womb, oviducts, and menstrual organs become oppressed by the presence of

the pent-up fluid; congestion and inflammation follow, and can only be relieved by means that will open a passage for the free exit of the menstrual fluid. .

Occlusion may also take place from sudden application of cold, producing inflammatory tumefaction, or a spasmodic contraction of the mouth of the womb.

We have known very foolish young women to immerse their feet in cold water, or bathe their person, for the purpose of bringing about a cessation of the flow, that they might join in some festive gathering,—a proceeding fraught with great danger; for the sudden arrest of a discharge of what was to have been secreted is liable to induce an engorgement of the entire sexual system, and may result in an active congestion or inflammation, and serious disturbance of the nervous system.

Stimulating injections to the internal surface of the womb, astringent injections for the purpose of stopping flooding in parturient women, or of relieving profuse catamenia, have sometimes proved exciting causes of this disease. Chronic inflammation of the womb from retention of acrid fluids, or ulceration of its neck, are also, sometimes, causes. Displacement, retroversion of the womb (this organ falling over, and pressing upon the menstrual organs), is said to be an exciting cause; so, also, the use of pessaries, and of certain medicinal agents that have an especial influence over the sexual organs, such as savin, cantharides, ergot, tansy, &c.; also gonorrhœal and syphilitic virus: these latter affect the menstrual organs by the virus passing through the womb and oviducts, and lighting up inflammation of the organs by its actual contact with them; or by the virus causing inflammatory action in the vagina and womb, and extending to the ovaries, either through sympathy, or by continuity of tissue.

We have already seen that an inflammatory condition of the menstrual organs cannot long continue without en-

tailing other infirmities or disorders. The nerves, whose office is to carry sensibility and action between organs and parts, must receive and transmit from the inflamed ovary impressions which must necessarily produce extraordinary and varied phenomena, according as they act on different organizations, which phenomena give TYPE to the disease. We have seen, that, in some, inflammation of the menstrual organs produces retention or suppression of the menses; in others, profuse flow; in others, painful flow, &c., according to the organization acted upon.

VI.

AMENORRHŒAL TYPE.

THIS type is characterized by an *absence of the menstrual flow* at that period of life at which its occurrence is naturally expected.

The menses *may have never appeared:* the female has reached the years of womanhood, but is still a child. This form is designated as the *amenorrhœa of retention*, or "*emansio mensium.*"

The menses may have appeared, and, for a longer or shorter time, observed their periodicity, but, from some cause independent of pregnancy, *become suspended or suppressed.* This form is designated as the *amenorrhœa of suppression*, or "*suppressio mensium.*"

We have seen that the ovaries are of a spongy, erectile, and vascular tissue; and that during the later days of the ripening process, or maturing of the Graafian cell and germ, the vital processes of the organ, undergoing ovulation, become greatly enhanced. The nerves are in a highly exalted condition. The entire organ is engorged, swollen, red, sensitive, painful, and not unlike the swollen and sensitive gum over a growing tooth. The swelling follicle, like a small nut, protruding from the ovary, rises up rapidly, and its sides become more and more thinned from progressive absorption, until at last the ovule bursts from its prison-house, and falls into the oviduct.

We have seen that the ovaries are subject to a repetition of this vital process every twenty-eight days; a process, which, although a physiological one, approaches to the very

boundary-line of a pathological condition; a process to which no other organ in the economy is subjected, and which is in itself "*almost* a disease."

Bearing in mind the *almost* diseased condition into which the ovaries are brought by the process of ovulation, it is very readily to be perceived how the vascular and nervous exaltation of these organs may — under the influence of morbid stimulus; exposure to variable temperatures; violent moral and mental perturbation, as sudden joy, grief, anger, fear, &c.; disease of an infectious or specific nature; the heat-generating influences of over-feeding and over-clothing, as seen among those tasting the joys of plenty, whereby the susceptibilities of the skin and mucous membrane are increased to their utmost; undue excitement of the nervous and sexual system, from the perusal of prurient books, passion-stirring pictures, statues, novels, the lascivious polka, theatres, &c., and last, but not least, the baneful practice among girls of interrogating the secret sources of pleasure which lie hidden within them — become still further heightened, until they reach a point where the physiological process passes into a state of disease, and where each of the above manifestations become greatly intensified; where the menstrual organs become still more congested and engorged with blood, more swollen, more red, more painful, more sensitive, the nerves in a still higher exalted condition; with more heat, more pain on pressure, an intermittent or permanent, deep-seated, and severe pain in the iliac regions, which is aggravated if the patient attempts to rise, or even straighten the limb upon the pelvis; with pains radiating to the loins and down the thighs, and upwards, to the small of the back; with or without more or less of fever, hot skin, quick pulse, and a slight puffiness or well-defined swelling in the iliac regions. Thus we see that the vital process of ovulation, under the influence of morbid stimulus, becomes heightened until a pathological condition is induced, and that pathological condition, an increased vascularity and nervous exaltation of the menstrual organs.

So intimately connected as is the uterus with the ovaries, it is natural to suppose, that while such great and important changes are transpiring in the ovaries; that while the vital processes of these organs are becoming greatly enhanced, and the nerves are in a highly exalted condition; that while, under the influence of a morbid stimulus, ovulation is passing from a physiological process into a state of disease, — a stimulus or influence must necessarily be transmitted from the ovaries to the uterus, which must induce in that organ certain changes and modifications. Such *is* the case. Instead of a physiological, a pathological stimulus is transmitted to the uterus, and an exaggeration of its vital functions induced. There is an increased irritability of its nervous, and an engorgement of its vascular tissue; which state cannot long remain without inducing a highly congested or inflamed condition of the substance of the uterus, or its lining membrane, or both, and a *tumefaction* of its tissues, which precludes the possibility of any secretion taking place. In other words, the tissues become so swollen, that secretion is impossible. This occurring, *retention* of the menstrual flow is the result, providing the diseased action under the influence of morbid stimulus be set up in the menstrual organs *just previous* to the establishment of the flow; or *suppression*, if the diseased action be set up *during* the flow.

This inflammatory tumefaction may last for a longer or shorter time, until, as is often witnessed, a watery exudation, or leucorrhœal discharge, relieves the distended capillary vessels, or until the vessels become broken from the force of distension, and the congested and engorged tissues become relieved by an inordinate discharge of blood: in other words, a profuse menstrual discharge, or menorrhagia.

Tumefaction in a congested or inflamed tissue is caused by the enlargement of the capillary vessels, but chiefly by the effusion from them, and will be therefore proportioned to the amount of these. In serous membranes, the vessels,

being comparatively few, admit of but little enlargement; and the effusions, not being retained by complexity of structure, soon overflow externally, and chiefly accumulate in the most dependent parts, producing what is termed dropsy. But mucous membranes are more vascular and complex in structure; hence the enlargement of the capillary vessels early, causes much thickening, which, with the swelling due to interstitial effusion in the sub-mucous tissue, always induces considerable tumefaction.

Retention or *suppression*, induced under the influence of a morbid stimulus acting upon and lighting up diseased action in the menstrual organs, as we have indicated above, may be said to be of no uncommon occurrence. Inflammation of the menstrual organs may, however, induce retention and suppression in other ways. The menstrual organs may become so congested and engorged with blood as to *draw to themselves* the blood they usually cause to be propelled from the uterus; or, under the influence of a morbid stimulus, the vascularity of the menstrual organs may be still further heightened, and they may become so swollen, engorged, inflamed, or disorganized, that they lose their governing influence over the sexual system, and, failing to transmit the menstrual stimulus or influence to the womb, it eliminates no blood; or, from the heightened action, the ovaries may pass into disintegration, or become atrophied, and their influence forever afterwards suspended.

Retention or suppression consequent upon a congested or engorged condition of the ovaria is by no means an unfrequent occurrence: in fact, we believe that suppression is ordinarily, and retention not unfrequently, induced by inflammation of the menstrual organs.

Amenorrhœa of retention occurs also from other causes, and these will now occupy our attention.

We have seen that woman becomes endowed with the power of perpetuating the species at that period when the ovaries attain their full growth and development. Men-

struation is the external manifestation or evidence of their having reached that period, and of their capability of bringing to maturity germs which need only to be fecundated to become developed into new beings. Menstruation is therefore a secondary phenomenon, a consequence of the maturing and extrication of the germ from the Graafian cell of the ovary, which is the capital phenomenon. When the Graafian cell arrives at its full development, menstruation commences. When, from progressive absorption, the sides of the cell containing the germ become so thinned as to become broken by the advancing ovule, menstruation ceases.

It will now be readily perceived that non-appearance of the discharge at the usual age does not always, nor generally, indicate disease. Cases are frequently met with where the discharge occurs late in life, and for the reason that the ovaries have not reached their proper growth and development, and are incapable of bringing to maturity germs. If germs are not matured and extricated from the ovary, which is the capital phenomenon, the secondary phenomenon, that is, menstruation, is impossible.

The full development of the ovaries, and the external manifestation of their capability to mature germs, i.e., the phenomenon of menstruation, occurs in this climate, ordinarily, between the fourteenth and fifteenth year of age. It however follows no fixed rule. Being governed by constitutional and other peculiarities, it occurs in some earlier, in others later: in fact, oscillates between the ages of eleven or twelve, and twenty.

Bearing in mind the variation as regards time of the appearance of the menstrual flow, we shall not regard its non-appearance at the age of fourteen or fifteen as indicative of a pathological condition, unless symptoms of ill-health are manifest. The absence of the flow in otherwise healthy young women is usually associated with the absence of some other signs of puberty, indicating a general tardy

sexual development. If, however, the age of seventeen or eighteen is reached, and the catamenia do not make their appearance, the delay is ordinarily attended with prominent symptoms of local or general disease.

Amenorrhœa of retention may be said to occur *ordinarily* from a want of a proper growth and development of the menstrual organs. This form of amenorrhœa is often seen in young girls whose occupation confines them much within doors. Bereft of the health-invigorating influence of the sun, fresh air, and exercise, the ovaries, in common with other organs and tissues of the body, become tardily developed.

This form of amenorrhœa is also seen in young girls who are kept within doors, and subjected to prolonged mental exertion.

False and fatal are those notions which proscribe all active exercise, vigorous and exhilarating sports and games in the open air. False and fatal is the idea that bodily strength, physical courage and activity, belong only to the male sex; that these are unfeminine, and detract from woman's peculiar charms; and that her especial province is to be quiet, gentle, amiable, timid, delicate, and to keep within doors, that the sun and fresh air may not disturb or tarnish the whiteness of her hands or complexion.

In most of our boarding-schools, the management of young girls is exceedingly erroneous. The strength is not developed by proper sports and exercises. Physical endowments are things untaught and uncared for, and all exercise is limited to a formal walk. And what is the consequence? The young woman grows up feeble and delicate; and pale and sallow tints, jaded looks, spare and puny frames, dyspepsia, nervous weakness, amenorrhœa, and consumption are the punishments imposed by Nature for disregarding the universal law of normal exercise. The crippling idea, too, of "female decorum, binds her like an invisible chain whenever she moves, and prevents her from daring to think, feel, or

act freely and impulsively. She must not do this; she must not study that; she has nothing to do with a knowledge of her own frame or its laws; she may not read the works, nor acquire the knowledge, that is open to men; she must not sport, nor play boisterously, nor go out unattended, nor in the evening walk alone in the streets, nor travel alone, nor make use of the thousand and one privileges which are open to the more fortunate sex:" hence the body and mind grow up weak, the strength is not developed; she is feeble and delicate; and, through the mischievous idea that timidity is an amiable trait in woman, it is cultivated until it terminates in a nervousness and timidity which induces attacks of hysteria on the slightest occasions for alarm.

The great law of exercise of every part applies equally to females as to males. The two natures are built on the same original model. Superior bodily strength and nervous power are as indispensably requisite in woman as in man; and for the double reason that true literary excellence and physical insignificance never yet united in the same individual; and that, in elevating their bodily powers, they do so not for themselves alone, but for their future offspring. Pale and sickly mothers beget pale and sickly children.

Impure air, preventing proper growth and development, also brings about the same condition of system. The girl grows up from childhood to womanhood, and arrives at the age when the ovaries ordinarily assume their power over the sexual system; but from confinement within doors, and want of exercise, conjoined with impure air, not only of crowded cities, but of small, ill-ventilated sleeping apartments, nerve-power has been but scantily developed, and so scantily sent down from the brain throughout the system, that the ovaries, in common with other organs and tissues of the economy, have failed to receive the requisite enervation to their full development. The circulation is feeble, and the frame delicate: the growth has become stunted. From the languid circulation, the pulse is feeble, and easily

excited; the extremities and skin are dry and harsh, or cold and clammy; and the face pale and sallow. From the unequable distribution of the blood throughout the economy, the internal vessels and viscera become engorged, and torpor and derangement of the chylopoetic viscera supervene. The liver becomes torpid; the evacuations unhealthy; the bowels costive, with a constant rumbling of flatus; urine scanty and high colored; tongue loaded with thick yellow fur; and the breath offensive.

Early hours, active exercise in the open air, regularity of meals, plain, nutritious food, with attention paid to the bowels, are the principal indications of treatment.

When the powers of the system are still more enfeebled; the blood still more impoverished; the blood-globules still fewer in number, and, consequently, still less nerve-power generated in the brain for the nourishment not only of the different organs and tissues of the body but of the blood itself; the torpor and derangement of the digestive organs still more enhanced, — we have that peculiar condition of system known as the "green-sickness," or CHLOROSIS, which is characterized by a dark, leaden-colored ring beneath the eyes, and a pallor of face of a peculiar sallow color with a greenish tinge. The circulation is languid and excitable, with palpitation and irregular action of the heart; the skin and extremities cold and clammy; the liver very torpid; the powers of digestion almost suspended; the bowels obstinately costive; evacuations unhealthy; tongue foul; bad taste in the mouth, and breath fetid. The appetite fails entirely, or exhibits an abnormal or unnatural craving for slate, chalk, and other such like articles of food; and hysteria in all its multiplied forms, with depression of spirits and melancholy, ensues. The powers of the mind become impaired, memory and concentrativeness fade: in short, there is not a function or faculty of the body or mind which is not more or less interfered with: all of them are enfeebled.

This condition of the system signifies an impoverished state of the blood, — impoverished of its red globules, the oxygen-carriers to the brain. Nerve-power is imperfectly generated, or generated in much too limited quantities for the wants of the system. The digestive and assimilative apparatus — the brain and the heart — are imperfectly nourished and stimulated; and the various functions of the economy go on from bad to worse.

Chlorosis essentially consists in a watery state of the blood. The red globules are wanting, which causes the death-like pallor, the great debility and exhaustion, and the arrest of the catamenial and fecal secretions.

From the absence of red globules, the blood becomes thin, and, transuding the coats of the weakened blood-vessels, causes dropsy of the limbs and other parts of the body.

The true indications of treatment are obvious, — a treatment that will restore, build up, and strengthen the powers of the system, — a treatment that will increase the blood-globules, and by doing so send more oxygen into the brain to be generated into nerve-power, and sent down throughout the system to nourish and stimulate the digestive and assimilative organs, — the brain, the heart, and all the organs and tissues of the body.

As has already been remarked, a frequent cause of non-development of the menstrual organs is the prolonged mental exertion to which young girls are subject while engaged in educational pursuits. The thinking organ consumes more than its share of nerve-power, and but little is left to be sent to nourish and invigorate the ovaries and other organs and tissues: hence their tardy development. We have seen also, that, until the ovaries *are* matured, no amount of effort, attention, industry, cultivated patience, application, or perseverance in educational pursuits, will secure those attainments necessary to a proud and enviable intellectual standing in society. All effort will prove futile; for it is through the influence of these all-important organs

that new life and vigor are given to every organ and tissue of the body. By their influence over the brain, elements of genius burst forth; the mind expands, and becomes possessed of faculties susceptible of great culture. How important, then, that parents should properly appreciate the importance of this fact, and not subject the tender and half-grown brains of their daughters to tasks that will not only not advance them in their laudable aspirations, but defeat the great purposes of their existence, and lay the foundation of multiplied ills, whose effects upon the mind will prove most disastrous!

Far be it from us to proscribe the liberal cultivation of the female mind. Let the young woman be taught the *essential* requisites of a female, and the necessary accomplishments of a rational being and a Christian. Then let her, if she chooses, aspire to attainments beyond the nursery, the kitchen, and the parlor. Let her enter the arena, and contend with man in intellectual pre-eminence. Within the pale of her acquisitions, let there be painting and the finer arts; let her aspire to emulate Raphael, Angelo, Correggio, Murillo, and Titian. Let there be poetry; it blends fact with imagination; it stirs the dormant life of the heart, and gives spiritual life in foretaste. Let there be music; it elevates the heart with dignity, and exhilarates, and causes it to beat with gladness; it commands alike the tears of sympathy and the smiles of delight. Let there be, if she will, Latin, French, German, algebra, natural philosophy. Let there be chemistry: let her, if she will, push forward organic analysis. Let there be anatomy and physiology: let her be unwearied in her researches concerning development and the structure of tissues, and exhaust and concentrate all the resources of modern science in order to elucidate organic laws. Let there be astronomy: let her learn to view with ecstatic pleasure the wisdom, grandeur, and sublimity displayed in the creation and sustaining of God's vast empire; let her mind

soar, as on angelic pinions, amid the grandeur and beauty of the mighty systems which shine forth, each in its own glory, throughout the infinity of space; let her learn to view with wonder and amazement, in all directions, clustered constellations, systems, and nebulæ, burning stars, wheeling worlds, and dashing comets, which encompass the heavens. Let her, if she will, become an eloquent and impetuous orator, an intrepid caviller, a specious sophist. Nature does not deny her the common privileges of her children, nor does she disunite her from human kind by any disparity of mind which leaves her no hope of equality. NATURE WILL, THOUGH, IF HER LAWS ARE DISOBEYED AND TRAMPLED ON, DENY HER THE REALIZATION OF HER ASPIRATIONS.

We protest *not so much* against the kind or the multiplicity of her acquirements *as to the period of life chosen for the laborious task*, — a period which should be occupied, not in the fatiguing mental labor of educational discipline and culture, but in PERFECTING THE PHYSICAL BEING, that a hardy and vigorous frame, with a healthful mind, may form that foundation upon which only may we hope to erect a superstructure beautiful in all its detail and proportion.

Another cause of non-development of the menstrual organs, and tardy appearance of the catamenia, lies in the rapid increase of stature. We frequently see young girls at this period take a sudden and rapid start in their growth, and they are said to have "outgrown themselves." The demand on the nerve-power for the purpose of effecting the rapid increase of stature leaves but little for the development of the ovaries: the increase of stature absorbs it.

Whether nerve-power is scantily developed, or whether it is absorbed by other organs, the ovaries fail to receive their needful supply. They become imperfectly nourished, and consequently tardily developed; and, as we have already seen, until they are fully developed they are incapable of

transmitting the menstrual stimulus or impulse, in other words, incapable of maturing germs: and no flow takes place.

Besides the above-mentioned causes of non-development of the ovaries, the occurrence, just previous to puberty, of any disease which more or less compromises the blood, such as intermittent and scarlet fevers, measles, &c., has the effect of retarding the growth and development of the ovaries, and consequently the appearance of the flow.

As the great majority of cases of retention occur from the want of proper growth and development of the ovaries, a treatment is demanded that has in view the building-up and strengthening the powers of the system.

It is the want of tone and strength in the different organs and tissues of the body, the want of proper growth and development of the menstrual organs, that is the cause of the non-appearance of the flow, and not, as is supposed by most mothers and not a few physicians, that its non-appearance is the cause of the general tardy development and ill-health. Let the tonicity of the muscular fibre, the general health, be restored, and the ovaries, with the other organs and tissues of the economy, properly nourished and developed by proper diet, pure air, and exercise, and the flow will take place independent of any application of remedies to "bring on" the menses, providing there be no mal-formation or mechanical obstruction to the flow. Menstruation is but a sign of a more important process going on deeper in the organism, — a sign which ordinarily appears, and indicates that the ovaries have become developed, and capable of bringing to maturity germs. Menstruation is not, however, indispensable to the full development of the sexual powers. The maturing of the germ and the oviposit may take place independent of the menstrual flow, and does so during pregnancy and lactation. Instances have been met with where pregnancy has occurred previous to the menstrual flow. Such instances, however, are exceedingly rare.

Sometimes, instead of the menstrual flow, a leucorrhœal discharge takes its place, but with all the relief of the natural flow, and should be regarded as a physiological instead of a diseased process.

The quantity of blood eliminated during the flow depends on the menstrual stimulus. If the impulse or stimulus be slight, the flow will be limited, and consist of but little else than mucus, and epithelium corpuscles.

As the patient's strength increases, and the powers of the system become sufficiently established, a change gradually creeps over her, and other symptoms begin to develop themselves. The ovaries during the ripening of the Graafian cell and germ become swollen and highly congested; blood-vessels that were before invisible to the naked eye now rise into view, interlacing each other in great profusion over the whole surface of the organ, but more especially surrounding the swelling follicle, which, like a small nut, protrudes from the organ. The nerves, too, are in a highly exalted condition, and the entire organ becomes engorged, swollen, red, sensitive, painful, and not unlike the swollen and sensitive gum over a growing tooth. What, a little time ago, was a case of mere atony, debility, and torpor, now begins to exhibit evidences of congestive action. The entire system sympathizes with the local hyperæmia; the head aches and throbs; languor and heaviness are experienced; the face becomes flushed; there is more or less of constriction in the throat, about the thyroid gland; and the patient begins to feel more or less pain or sensitiveness in the iliac region, with a puffiness, swelling, or a stiffness of the integuments covering those parts. There is also pain in the back and loins, extending around the pelvis and down the thighs, with a sense of weight in the pelvis, from the swollen and vascular condition of the uterus; and burning sensations along the vagina. The countenance becomes covered with a peculiar dark shade: this is especially observable underneath the eyes. The cutaneous perspiration has

a faint and sickly odor, and the breasts often enlarge and become painful. Many more symptoms there may be and generally are, which go to make up the "too plethoric" condition of system of some writers, but which, as we see, have their rise and origin in the local hyperæmia occasioned by the maturing of the Graafian cell and germ. These symptoms continue for a longer or shorter period, until the catamenial flow sets in, and the ovule bursts from its cell; when the multiplied symptoms vanish. Instead of the catamenial flow, a leucorrhœal discharge sometimes takes place, and the various symptoms subside, to return again in four or five or more weeks.

The true indications of treatment in this condition of the system do not consist in remedies directed to a "too plethoric" condition, but an antiphlogistic treatment directed towards the congested and swollen menstrual organs.

Retention occurs also from scrofulous, tuberculous, and other constitutional diseases, which impoverish the blood, and debilitate, enervate, and exhaust the powers of life.

Retention may also occur from malformation or congenital deficiency of the genital organs. When the ovaries are absent, or persistently remain in the same undeveloped condition which they present in infancy or early childhood, the infirmity is irremedial: menstruation and conception are impossible. The uterus may be incompletely developed, rudimentary, or entirely wanting. The vagina may be wanting entirely, or end in a cul-de-sac, or blind pouch. These malformations are beyond the reach of surgical interference, and, happily, of exceedingly rare occurrence.

When the ovaries are absent, the female experiences no periodical occurrence of symptoms appertaining to the menses; but if the ovaries be present, though there be neither womb, vagina, or external genital organs, she is liable to periodical attacks of pain in the back and loins, and other evidences of the performance of the ovarian function. Dr. *Elliotson* relates a case in point. "A young woman," he

says, "consulted me for amenorrhœa. She had never menstruated, and yet had violent pains every month. I strongly suspected there was some organic disease, and wished to obtain permission to examine; but to this she would not consent, and did not return to me for a considerable period. She informed me, when she again consulted me, that she had been married for a year, but had never menstruated. I then thought I must have been wrong, and that there was no organic cause. I asked if she was happy with her husband, and from her answer concluded that sexual intercourse went on. The husband afterwards came to me, and stated that he had not encountered any impediment to connection, but that he gave her violent pain at the time. I afterwards was permitted to examine, and then found there was no vagina; the part on opening the labia being as flat as the palm of my hand. She had most excruciating pain in the pelvis every month: there was every symptom of menstruation, except the discharge. At my desire she was examined by Mr. Henry Cline, who plunged a lancet between the labia, but found nothing. She went on with these monthly pains, which she had experienced ever since puberty; and her life was rendered utterly wretched. I begged Mr. Cline to make another attempt; and he put in a bistoury as far as he dared to go, but found nothing. Every sort of examination was afterwards made, and no uterus could be discovered. She remained several years in this situation, when her husband died; and she has married again. Though there is no uterus, it was evident from the appearance of the mammæ, and other circumstances, that the separate ovaries had been fully developed." Mr. *Girdwood* had a similar case: "The patient was twenty-five years of age, and had been married two years, though she had never menstruated. Every month there was great pain in the region of the pelvis, which lasted for several days, and then went off without any menstrual discharge taking place. The mammæ and external sexual organs were fully devel-

oped. On examination, not the slightest trace of a body like the uterus existed." Cases of like character are mentioned by *Hawkins*, *Beck*, and others.

The absence of both ovaries is exceedingly rare, and, when this deficiency exists, sexual appetite has no existence, and there is, ordinarily, a want of proper development of the other sexual organs.

The development of the body is unaffected by the absence of the uterus: the health may be perfect. Not so, however, with the non-development of the ovaries, as we have already shown in previous pages. The external generative organs may be in a perfectly natural condition, yet the womb may be absent, and the vagina found terminating in a cul-de-sac.

Retention of the menses sometimes occurs from closure of the outlet, either at the os uteri, or from imperforate hymen; from blocking up of the passage of the vagina by tumors, or from its adherent sides; from glueing together of the mouth of the womb; from severe cauterization, &c. In these cases, the exit of the secretion being cut off, an oppression of the entire sexual system occurs; and congestion and inflammation may supervene unless relief be obtained by means that give free flow to the pent-up fluid.

Whenever mechanical obstruction exists to the free flow of the menstrual fluid, the quantity secreted is much less than in the natural condition. This diminution in the amount secreted, with the activity of the absorbent vessels, prevents ordinarily the occurrence of a fatal termination. There are cases recorded, however, where the pent-up fluid has forced its way through the Fallopian tubes into the abdominal cavity, terminating in fatal peritonitis.

Cases are also recorded of very narrow vaginal canals, rendering transmission of the menses slow and difficult, and complete coition impossible, but which, nevertheless, underwent a natural cure during parturition.

Amenorrhœa of suppression may occur from disease of

some one or more of the sexual organs, the most frequent of which is sub-acute or chronic inflammation of the ovaries. Of this form we have already spoken in the early part of this chapter, and it need not here be repeated.

Suppression, like retention, may occur from consumption, scrofula, and other constitutional disease; all diseases, in fact, which impoverish the blood, and debilitate and exhaust the powers of the system. Errors in diet, impure air, mental and moral perturbation, anxiety, disappointment, watchfulness, fatigue, fevers, local inflammatory affections, and diseases of an infectious or of a specific nature, conduce to bring about a condition of system that results in suppression.

Suppression, and so also chlorosis, may occur from the pernicious habit of solitary indulgence. It over-excites, and induces an engorged condition of the vessels of the ovaries. The habit is just as common among young women as young men. The same violent sexual passions exist equally in both; and, when the proper and natural gratification is denied, it is quite certain that an unnatural one will be very frequently resorted to.

Suppression and chlorosis may also occur from ungratified sexual longings. It should be borne in mind that every secretion has its natural and appropriate stimulus: for instance, the flow of saliva is promoted by the stimulus of appetizing odors, or of food in the mouth; that of the bile by the substances passing through the alimentary canal; that of the gastric juice by the presence of food in the stomach. It should also be borne in mind that sexual congress is the only *natural* stimulus to the ovaries, from which organs the menstrual impulse is communicated to the womb, through which the catamenial secretion is evolved.

Under the head of *sexual disappointment*, we have already and at considerable length spoken of the force of "desire." We have seen that it is a principle implanted deeply within us, and for wise purposes; that it is natural,

a law of Nature, and a law not to be ignored or opposed; that its force is of immense power, which power, if imprisoned, and not permitted to discharge or expend itself through its natural and legitimate outlet, falls with varying degrees of intensity upon the excited and sensitive ovaries, inducing in them an irritation or sub-acute inflammation, which leads to suppression and chlorosis, besides a multitude of other ills peculiar to the sex: and we shall, instead of extending our remarks, introduce here the views of a distinguished writer. He says, "Ungratified sexual longings are generally connected with some love-affair in which there has been disappointment or delay. The poor girl's whole being is absorbed in the one passion, and she pines away, refusing consolation from her well-meaning but ignorant friends. It is in vain that they seek to divert her by tenderness or varied amusements: it is love, not friendship, that the mind seeks at that age, and without which it knows neither rest nor peace. There is no class of human griefs which has been to me a greater cause of sadness than those endured by the young unmarried females amongst us. People in general have no idea of the immense numbers of women who pass a single life in this country (England). According to the classified returns of the population, made lately, although the number of young men and young women between the years of fifteen and thirty-five is in the country nearly equal, in the towns of England there are 230,912 more women than men. In London alone there are 72,312 more women. In Scotland the case is the same. In Edinburgh, there are 15,556 more women than men; a larger proportion than in any other town in the kingdom. When we think of this, and consider, moreover, the great number of men who do not marry, but either live in sexual abstinence, or content themselves with the society of girls of the town, and the very large proportion of either sex who are unable to marry till late in life, from inability to support a family, we shall

be able to form some slight conception of the misery endured by the female sex from ungratified sexual desires, want of love and all the joys of a family. How often, alas! do we see young blooming girls, full of life and hope, entering on their womanhood, and year after year passing over them without any outlet for the strongest passions and affections of their nature! Their beautiful natural gayety and enjoyment of life soon droop; they become uneasy, discontented, unnatural; the bloom fades from their cheeks, and the laugh from their lips; fretfulness and capriciousness succeed to the buoyant, sunny disposition; and hysteria and the gloomy train of sexual diseases — chlorosis, amenorrhœa, or dysmenorrhœa — claim them as their prey.

"Why do we shut our eyes to these things, or steel our hearts to such realities? Is there one among us who does not know from experience the universal strength of the sexual passions, and the tortures attendant on their constant and systematic denial? Who can bear to see their life passing away uncheered by the sweetest of human pleasures; to see their fellows around them enjoying advantages and blessings of which they are deprived, without a feeling of deep-seated discontent, envy, jealousy, and despair rankling in their breast? On woman, too, it is especially hard; for she is, from our unfortunate social arrangement, far more wholly dependent on love than man. There are many other pleasures open to man, from which woman, and especially unmarried woman, who has so little liberty, is debarred. Truly, of all the slow and wasting tortures that ever were endured by humanity, there is scarcely any more painful to contemplate than those endured by myriads of women who pass their lives amongst us. The halo passes from their lives, the short-lived dream of romance and poetic love fades into the dull reality of a monotonous and unfulfilled existence, and the iron eats into their soul."

In speaking of *remedies*, the same writer says, "A

remedy far more essential, in the great majority of chlorotic cases, than any medical means, is one that obtains, at most, but a slight and passing allusion in medical works. It is sexual intercourse, the direct and healthy exercise of that part of the system whose enfeeblement and disorder is so frequently at the root of the general disease."

Andral, the celebrated French physician, says, "All lowering remedies do harm in chlorosis; but it frequently happens, that, by stimulating the nervous system by the physical and moral emotions of matrimony, the anæmia (or bloodlessness) is removed, and the whole train of diseased action vanishes."

Tilt says, "We are persuaded that the want of the appropriate stimulus to the ovaries, which should promote healthy action, is often the cause of their becoming the seat of morbid affections."

Prof. *Ashwell* says, "Marriage is frequently curative of chlorosis; but as its prospect is in general far distant, and, besides, as it is scarcely a proper subject for the medical man's discussion, it calls only for a passing allusion:" to which the author of "SOCIAL SCIENCE" very correctly replies, "But it is assuredly the part of the *true physician* to seek in every case the safest and most energetic means for the recovery of his patient, and to make that known, whatever social obstacles may stand in the way of its adoption. Had M. Lallemand thus refrained from pointing out the true and natural remedy for spermatorrhœa, and from recommending it to his unhappy patients, many a one who owes to him his restoration to health and happiness would now be the tenant of a mad-house, or wallowing in depths of seminal wretchedness, a torment to himself and to all around him. Chlorosis and hysteria in the female are diseases quite analogous to spermatorrhœa in the male. Both are a general enfeeblement and prostration of the system, connected with genital enfeeblement. Now, in man, we have already seen, that the only real natu-

ral cure for spermatorrhœa (without which, in almost all cases, the disease lasts indefinitely, causing its own insufferable miseries) is a proper, healthy exercise of the sexual organs, and a healthy outlet for the sexual emotions and passions. Spermatorrhœa may be perhaps checked in some cases by instrumental means, such as nitrate of silver, &c.; but this is not sufficient to give permanent vigor to the organs, nor to correct thoroughly the diseased and morbid state of the mind; which can be done alone by the grand natural means of appropriate exercise. In woman, the case is just the same; her nature languishes for the want of the natural stimulus to be imparted only through these organs; her mind and her feelings become morbid from the same cause: and the only true and permanent remedy is a proper amount of sexual exercise. This would give an appropriate stimulus to her system, satisfy the natural passions which consume her strength, and give to her mind the natural, healthy, sexual feelings, instead of the morbid, sickly sense of shame and sexual timidity which overwhelm her. Sexual intercourse is particularly necessary when chlorosis has been caused by masturbation; for here there is not only a natural habit to be established, but an unnatural one to be eradicated, and this in both sexes is sometimes a difficult matter. Indeed, there is no means which can be relied upon, in either sex, for checking the habit of masturbation, except the supply of the normal gratification. Were such gratifications attainable, masturbation would rarely, if ever, be resorted to; and one of the most prevalent causes of bodily and mental decay would be extirpated."

The same writer adds, that, in woman, "the sexual organs are early developed, and powerful sexual appetites roused; she is liable to sexual enfeeblement and derangement consequent on the non-exercise of her sexual organs; and can any philosophical mind infer otherwise than tha a proper exercise is the treatment required for her cure? Nay, we find, that, in the chance cases in which marriage has come

to the succor of these unfortunates, it has generally proved curative; and we may be satisfied, that, if the sexual means were duly used (which is frequently by no means the case in marriage, over-indulgence producing exhaustion and satiety, instead of re-invigoration), along with other means of bracing the health, very few cases of chlorosis, or the allied affections, could resist it. The fact is, there are few men, who, on calmly considering the subject, would fail to see that a due amount of sexual intercourse is one great thing needed to preserve and restore the health in the youth of both sexes; and it is a common remark among men, on seeing a girl languid and sickly, that what she needs is venereal gratification. It is impossible to avoid the conclusion, that the natural exercise is the great means without which it is absolutely impossible to prevent or cure an immense amount of disease and misery. When once we have clearly recognized this grand truth, — certainly one of the most important which the physician or the moral philosopher can apprehend at the present day, — we shall be in a fitter position for reasoning upon the possibility of procuring for every human being this great essential of health, happiness, or virtue.

"There is a great deal of erroneous feeling attaching to the subject of sexual desires in woman. To have strong sexual passions is held to be rather a disgrace for a woman; and they are looked down upon as animal, sensual, coarse, and deserving of reprobation. The moral emotions of love are indeed thought beautiful in her; but the physical ones are rather held unwomanly and debasing. This is a great error. In woman, exactly as in man, strong sexual appetites are a very great virtue, as they are the signs of a vigorous frame, healthy sexual organs, and a naturally-developed sexual disposition. The more intense the venereal appetites, and the keener the sense of the normal sexual gratifications, provided it do not hold a diseased proportion to the other parts of the constitution, the higher is

the sexual virtue of the individual. It is exactly the same with the venereal appetite as with the appetite for food. If a woman be healthy, and have a frame braced by exercise and a natural life, she will have a strong appetite and a keen relish for food; and it is exactly the same with sexual desires. The strongest appetites, and the greatest enjoyment in their gratification, have been fixed by Nature as the reward of obedience to her laws, and the preservation of health by a due exercise of all the functions, neither excessive nor deficient. The man or woman who is borne down by a weakened and diseased digestion will recognize strength of stomach and vigor of appetite to be the greatest of all desirable virtues for them, that which lies at the root of every other advantage; and, in the same way, he who is wallowing in spermatorrhœa, impotence, and sexual disgust, or the morbid and chlorotic girl, may recognize sexual power and strong sexual appetites as the highest and most important of all virtues for them in their position. Other virtues are in such cases a dream and a delusion to the sufferers, — unattainable, or, even if apparently attainable, of little real and permanent advantage. Instead of a girl being looked down upon for having strong sexual passions, it is one of her highest virtues; while feeble or morbid desires are the sign of a diseased or deteriorated frame. Those who have the most healthy desires are the chosen children of Nature, whom she thus deems worthiest to continue our race. In sexual diseases, the venereal desires are generally deadened, or rendered morbid; and one of the best signs of restoration to health is the return of powerful sexual feelings. . . .

"When the girl has been trained to the possession of a powerful and healthy frame, and a healthy mind, invigorated by sound knowledge, for her guidance in life, puberty will be readily and easily established, menstruation will follow, and she will enter upon womanhood with the fairest prospect of happiness. But at this period it is absolutely

requisite, in order to maintain and elevate the health, and prevent the occurrence of sexual disease, that she should have, before long, a healthy exercise for the new organs, and the normal gratification of the new desires. If this be not attainable, all our former efforts will prove in vain, and we shall have elevated her powers only to their own destruction; for her mind and body will indubitably be thrown into disorder by the workings of the new physical and moral influences. She may, indeed, retain her health for a time, but, gradually, menstruation will become irregular or painful; she will become hysterical and nervous; and discontent and unhappiness will take the place of her former amiability. We may do what we please in the way of other healthy influences, we may bestow every other care on the nurture and education of our beloved ones; but it is absolutely impossible to make woman healthy or happy without a due amount of sexual enjoyment. Irrespective of the question of its attainability, we may recognize the indisputable fact, that, without it, it is equally impossible to prevent or to cure the greatest part of their sexual diseases and unhappiness; and female therapeutics are an impossible science. If the sexual organs are to remain, as at present, totally unexercised throughout a great part, and, in numberless cases, throughout the whole, of life, and if chastity must continue to be regarded as the highest female virtue, it is impossible to give woman any real liberty; it is impossible to give her a true and genuine education, and to cultivate her bodily powers and animal passions as they should be cultivated; and it is out of human power to make the lot of woman other than an unhappy, a diseased, and a degraded one, as it is at present, when vast quantities of the sex pass their lives as involuntary nuns or as prostitutes."

Suppression is not unfrequently caused by sexual intercourse, as seen in recently-married females; the new and novel stimulus acting upon the mind, and the mind re-acting upon the body, or, as is more probable, the novel and

unaccustomed stimulus having the effect of over-exciting, over-stimulating, and inducing an engorged state of the vessels of the ovaries, and so changing them that they do not transmit the menstrual stimulus or impulse; or, from over-excitation, the ovaries pass into a pathological condition, and transmit a morbid stimulus that induces a state of congestion and tumefaction in the uterine tissues, which is followed by suppression, and which may, and not unfrequently does, terminate in profuse flow. This is more especially true when marriage takes place late in life: the ovaries, being predisposed to disease from their being denied the health-invigorating influence of a natural stimulus, and having become somewhat accustomed to the deprivation, become over-excited and congested upon its application.

Sudden deprivation of an accustomed sexual stimulus, as experienced by young widows, not unfrequently induces congestion and engorgement of the ovarian and uterine tissues, which is followed by suppression.

Habitual excesses, as seen in women sold to vice, are productive of the same state of congestion in the uterine vessels, a congestion, though, that is ordinarily of a more active character, and very quickly passes on into that stage where the capillary vessels become broken from their excessive engorgement, and immoderate and long-continued flow is the result.

When a morbid stimulus lighting up disease in the menstrual organs is followed by amenorrhœa, the diseased condition becomes the cause, and the non-appearance of the flow, the sequence. If the cause be removed by appropriate treatment, the amenorrhœa disappears. To be appropriate, the treatment must be directed to the *cause*, viz., the diseased menstrual organs, and not to the effect, viz., the amenorrhœa. It is not to the flow that relief is to be ascribed, but to the establishment of health, to the relief of the congested and engorged ovaries. The flow is but the sign of their returning normal condition.

From the above, it will be seen that we regard disappearance of the catamenia, ordinarily, as the effect of an inflammatory action in the menstrual organs. There are cases, however, in which the suppression becomes the cause not only of inflammation of the menstrual organs, but of the entire sexual system. A not uncommon instance is the morbid stimulus of application of cold, as cold or wet feet, producing inflammatory tumefaction, or spasmodic contraction of the mouth of the womb, arresting a discharge of what was to have been secreted or excreted, and inducing an engorgement, active congestion, and inflammation of the entire sexual system, and most serious disturbances of the entire nervous system. Very serious disturbances, however, from suppression in this manner, are *not* very common: a few slight symptoms may manifest themselves, but, generally, soon vanish; and the next menstrual period occurs at its regular time.

There is another important consideration connected with this subject, in the *gouty* and *rheumatic* effect of amenorrhœa upon the different organs and tissues of the economy. The monthly excretion of some half-dozen or more ounces of catamenial fluid is of no small importance in the *depuration of the blood.* When the flow becomes more or less suppressed, and purification of the blood is thrown upon other emunctories of the economy, it is invariably followed by a class of symptoms which show no little disturbance of the circulation. Observation has shown, that when, through retention or suppression of the menstrual flow, depuration of the blood has become suspended through this channel, the liver ordinarily endeavors to take upon itself the duty of not only eliminating the effete matters of the blood which it is accustomed to eliminate, but also those that should have been eliminated by the uterine membrane. In performing this double duty, the liver is exceedingly prone to become, through excess of the poisonous and effete matters of the blood, over-stimulated, congested, and inflamed.

The liver, like the kidneys, when called upon to eliminate more than its due share of the effete and poisonous matters of the blood, becomes ordinarily the seat of more or less of congestion, and even inflammation, attended, generally, with nausea, loss of appetite, languor, drowsiness, disturbed sleep, headache, pain, and sense of distention of the abdomen and right side of the body, with yellowness of the skin, &c., — that condition of system known as "bilious;" which condition, when connected with suppression of the menstrual flow, gives rise to gouty and rheumatic symptoms in females, which of late years have arrested the attention of the profession.

Sometimes the *skin* and the *lungs* take up this elimination, partially or wholly, and the unfortunate female emits an odor extremely mortifying to herself, and almost unbearable to her friends around her. We recently saw a patient laboring under this infirmity; and, surprising to say, her medical adviser was treating her for "catarrh."

When the lungs take an active part in this extra elimination, the patient is liable to attacks of difficult breathing, pain and tightness across the lower part of the chest, with swollen and livid features, and other symptoms of pulmonary congestion.

If the skin becomes an active agent of the elimination, the patient is liable to a variety of *eruptive* and *cutaneous* diseases.

In conclusion, we will repeat, that the catamenial flow is an external manifestation, implying that the ovaries have become developed, and capable of maturing and eliminating ova. Maturation and oviposit may be performed without this external manifestation, as is evidenced by conception taking place previous to any appearance of the flow. These instances, however, are very rare, and, when menstruation has not taken place before marriage, sterility is ordinarily the result. Delay of marriage should be recommended where menstruation has not occurred, — a delay, at any

rate, until the cause of the amenorrhœa can be investigated; for it may be possible that the non-appearance of the flow may depend upon some congenital malformation, such as absence of the vagina, or its imperfect formation, which would prove a bar to sexual intercourse. The mortification of an investigation would fall far short of the distress which would be entailed upon all parties, if a woman with some important malformation of her sexual organs were to contract marriage.

VII.

MENORRHAGIC TYPE.

THIS type is characterized by an inordinate menstrual evacuation, either as regards *quantity*, its *long duration*, or its *frequent return*.

When a woman menstruates her *usual* quantity, be it much or little, the discharge is normal. When she discharges more than this, it is *menorrhagia*. A woman may discharge twelve or twenty ounces, and the evacuation be normal; while another may discharge only five or six ounces, which constitutes menorrhagia, for the reason that it is more than her usual quantity.

When the quantity discharged has become more than usual, it ordinarily not only increases still further as regards quantity, but its duration becomes gradually lengthened, and recurs at shorter intervals.

When inordinate as to quantity, the discharge is more or less clotted, for the reason that its passage through the vaginal canal is so rapid, that it fails to become mixed with, and acted upon, and dissolved by, the acid mucus of the vagina.

While we are inclined to the belief that the menstrual fluid is a true *secretion* from the inner surface of the uterus, we believe that it differs but very slightly from blood circulating in blood-vessels. That it is a true secretion would seem evident from the fact that an injection sent into the arteries of the uterus readily transudes through its lining membrane; and we have the testimony of many distinguished medical observers who have, in cases of inversion

of the uterus, seen the fluid distilling from its lining membrane. It is, however, a matter of much controversy, whether the fluid is blood or a secretion.

While we are inclined to the belief that the fluid in its normal state is a true secretion, but differing in no important particulars from the blood which circulates in the blood-vessels, yet we do not believe an inordinate or menorrhagic evacuation to be the result of an inordinate secretion, but rather a discharge of true blood from congested and engorged vessels that have become broken from the force of distention.

We have already seen, how, under the influence of the morbid stimulus of exposure to variable temperatures, undue excitement of the nervous and sexual system, &c., the ovaries may pass from a physiological to a pathological condition. *No organ in a pathological condition can transmit a physiological stimulus.*

We have seen that the pathological stimulus transmitted by the diseased ovaries to the uterus induces in that organ certain changes and modifications. We have seen that the morbid stimulus acting upon the irritability of the uterus, disturbing the normal condition of its nervous and vascular tissues, very rapidly induces a highly congested or inflammatory condition, and a tumefaction of the tissues, which preclude the possibility of any secretion taking place. We have also seen that this tumefaction may continue until the distended capillary vessels become relieved by a watery exudation, or leucorrhœal discharge, or it may continue until the engorged and over-distended vessels become broken from the force of the distention, and relieved by an inordinate discharge of blood, which, in professional language, is called *menorrhagia.* Menorrhagia, like the watery exudation, is the *resolution* of a previous turgescence of the blood-vessels.

Accompanying the flow, there is usually more or less of a sense of fulness in the pelvic region, pain in the back and

loins, shooting, darting pains running down the thighs, tenderness and pain low down in the bowels or each side, with heat, swelling of the parts, &c. These accompaniments are well marked in some, obscure in others.

We conceive menorrhagia to be, ordinarily, the effect of a *pathological condition of the menstrual organs*, inducing undue uterine congestion and tumefaction, which terminates in over-distention and rupture of the capillary vessels. That an undue excitement, irritation, or inflammation of the menstrual organs will be found, *if properly sought for*, in the great majority of cases of profuse flow, we unhesitatingly believe.

That menorrhagia *may* occur from an anæmic state of the system, where the blood, thin, dilute, watery, and deficient in its red particles, oozes away in consequence of the atonic state of the solids (Prof. *Bedford*), may not be safe, perhaps, to deny. Such a condition, however, we believe to be extremely rare, and far less frequent than is supposed by some writers.

A profuse flow does not always occur in the weak and debilitated, but very often in those of the very opposite condition; and we are taught also (by Prof. *Meigs*) to believe that menorrhagia occurs sometimes from the "strong injecting force of the heart transcending the resisting powers of healthy tissues."

Notwithstanding the high sources from which these ideas emanate, we hesitate to adopt them. We believe that menorrhagia *always* presupposes congestion; and congestion, a morbid stimulus or irritation.

That there is in women subject to menorrhagia, or any other exhausting or debilitating influence, more or less of an anæmic state of system, a thin, dilute, watery blood, and a consequent weakened and enervated condition not only of the tissues of the womb, but of the entire system, there is no doubt; and it is *because of this very condition* that the menstrual organs, so pre-eminently disposed to disease, be-

come lowered in their vital powers, and unable to ward off the persistence of morbid stimulus to which they may be subjected, succumb, pass into a pathological state, and transmit a morbid stimulus that induces the excessive uterine congestion which terminates in profuse flow. *Or*, from the weakened and enervated condition of the system, the muscular floor and other tissues of the pelvis lose their tonicity, become relaxed, and a *sinking of the womb* and other organs of the pelvis takes place, which induces *irritability* and engorgement in their tissues, and a consequent excessive flow.

Those living in luxury and indolence, where the powers of life have become enervated and weakened from the want of the natural stimulus of sunshine, fresh air, and exercise, are exceedingly prone to menorrhagia; not, however, because of any "weakness," not because of any flaccid, feeble, or adynamic state of the womb, which allows the blood to flow passively away, but because the powers of the system have become lessened, and the ovaries and uterus, and other organs of the body, participating in the general enervation and weakness, more easily succumb to the influence of morbid stimulus.

We have seen how pre-eminently disposed the menstrual organs are to take on diseased action, not only from their spongy, erectile, and vascular tissue, but from the vital turgescence to which they are subjected every twenty-eight days through the process of ovulation, — a process, which, as we have seen, is *almost* a disease. How much more liable are they to succumb to the influence of morbid stimulus when their vital power and their tonicity are more or less destroyed! how much more susceptible to the influence of the incitations to which they are so often subjected!

Menorrhagia is no uncommon infirmity with females subjected to those prurient incitations which are produced by thoughts, books, pictures, &c.; indulgences in unlawful contacts; excessive libidinous sensations, &c., — all produ-

cing over-excitation and over-stimulation of the sensitive ovaries which are so very susceptible to such morbid influences. From their over-stimulated condition, they discharge too rapidly immature eggs: hence the frequency of the catamenia, in other words, the menorrhagia.

As amenorrhœa, dysmenorrhœa, and hysteria are ordinarily consequent upon insufficient stimulus of the ovaries, through the want of sexual intercourse, so menorrhagie often proceeds from an *inordinate* use of this stimulus. Women in every way unfortunate are extremely liable to profuse and long-continued flow, from over-excitation and congestion of the menstrual organs consequent upon an inordinate use of this stimulus, the cure of which is almost impossible by any means, save complete abandonment of their habits. *Solitary practice* is also very apt to induce the complaint, especially when the sexual organs have been unaccustomed to venereal stimulus, and more especially if the subject of the unnatural indulgence be of an irritable and nervous temperament. In women *married late in life*, where the sexual organs have not only been unaccustomed to the stimulus, but have become somewhat accustomed to the deprivation, a very moderate indulgence oftentimes induces the infirmity; so also those who have been brought up within doors, taking little or no exercise, and those who are habitually weak and excitable, are extremely liable to profuse or long-continued flow upon application of the stimulus, no matter how moderate may be the indulgence.

Menorrhagia is common in women of irritable and nervous constitutions, and will oftentimes prove a most obstinate symptom to deal with, unless correct ideas be entertained of the true character and seat of the primary disease.

Menorrhagia is exceedingly common at that period described as the *critical time* in the life of woman, manifesting itself in those sudden floodings which so often terminate menstruation. It manifests itself also by its continuance for a long time after the usual suppression of the function.

This we conceive to be in consequence of the periodical congestion of the menstrual organs, which has lasted for so many years, not at once subsiding.

The discharge is also, not unfrequently, kept up from the great agitation of mind and nervousness that are present. This mental inquietude proceeds, not unfrequently, from the great dread of organic disease, which, at this period of life, is liable to occur, more especially in those who have passed their lives as involuntary nuns, and deprived of the normal sexual stimulus. To many of this class it must also be a most painful thought, "that the season of their youth, the last rose of their summer, is fading; that their sexual life has been totally unfulfilled, and that there is no more hope for them of a child to gladden their old age. Alas that such lives and such sad thoughts are so common among us!"

Corpulent and indolent women, those who take but little active out-of-door exercise, are exceedingly prone to this continuance of the menstrual flow. In them there is a greater tendency to congestion of the ovaries, which does not at once subside; more especially as there is an effort on the part of Nature to close up the discharge, and shut the safety-valve through which their plethora has been accustomed to be relieved.

Hemorrhages occur which are entirely unconnected with the menstrual function, unconnected with any influence transmitted from the ovaries, — *accidental hemorrhages.*

Accidental hemorrhages of the womb occur from the presence of hydatids, polypi, tumors, cancer, a detached ovum, wounds, &c. These, however, are, happily, of rare occurrence. Ulceration of the cervix uteri, and abrasions, are not unfrequent causes of uterine hemorrhage.

Another cause of accidental hemorrhage is to be found in those cases, where, the menses having long been suppressed, a profuse bleeding suddenly bursts forth, to the great relief not only of the uterine tissues, but of the system

generally; yet sometimes it threatens the life of the patient, because of its profuseness.

Another and more frequent cause of accidental hemorrhage is to be found in an irritation of the tissues of the womb by morbid blood. Granular degeneration of the kidneys and derangement of the liver are no unfrequent causes of uterine hemorrhage. From want of proper elimination of the impurities of the blood through the kidneys or liver, in consequence of a pathological condition of these organs, the poison is thrown back upon the system to seek some other outlet. The uterus being the seat of a periodical congestion, through ovulation, tends to localize the poison at that point, through which secreting surface it seeks to work itself off.

Those subject to accidental hemorrhage are ordinarily subject also to menorrhagia; the cause of the former acting as a morbid stimulus, and lighting up disease in the menstrual organs, which transmit a morbid stimulus back again to the womb, inducing congestion and a consequent excessive flow.

Accidental hemorrhages are usually readily distinguished from menorrhagia by the *continuousness* of the flow. In menorrhagia, a *periodicity* is observable in most cases.

Instances are sometimes met with of what seems like a special susceptibility of the sexual system, in which any sudden perturbation, moral or mental, is followed by hemorrhage, lasting, perhaps, only for a few hours, or for days, and even passing into profuse flow. The unaccustomed stimulus of sexual intercourse, as we have already seen, oftentimes leads to suppression, which is frequently followed by hemorrhage.

Ordinarily, accidental hemorrhages do not compromise the periodical flow. Menstruation generally continues to observe its proper periods of return; but, the menstrual organs becoming more or less affected, it lasts on each occasion much longer than is natural.

The true indications of treatment of menorrhagia are obvious. If, however, from misapprehension, or incorrect ideas as regards the true seat of the disease; if it be regarded as a case of debility, or anæmia, and treated as such, with tonics, stimulants, astringents, &c., taking no thought of the pathological condition of the menstrual organs, — most disastrous consequences may result: a train of physical, mental, and moral disturbances may be induced by the excessive flow, weakening and exhausting the patient, which may terminate in dropsical effusions and death. Very fortunate is it for the patient that those who regard the infirmity as one of "weakness," impoverishment, and fluidity of the blood, atonic state of the system, &c., meet those indications with injections of cold water, alum, opiates, &c., — remedies admirably adapted to relieve the ovarian irritability.

VIII.

DYSMENORRHŒAL TYPE.

THIS type is characterized by more or less scantiness of the menstrual flow, which may or may not be shreddy from membranous formation, preceded by and accompanied with more or less of pain in the iliac and lumbar regions, and, frequently, hysterical manifestations.

Painful menstruation is one of the most frequent, as well as one of the most important, infirmities that woman is heir to. It is very common, and produces much suffering.

We have seen, that, during the process of ovulation, the vital processes of the ovaries become greatly enhanced; the nerves are in a highly exalted condition; blood-vessels that were before invisible to the naked eye now rise into view, interlacing each other in great profusion. The entire organ becomes swollen, red, sensitive, painful, and not unlike the swollen and sensitive gum over a growing tooth. We have seen, that, under the influence of morbid stimulus, this vital process, which is in itself *almost* a disease, becomes augmented, until it reaches a point where the physiological process passes into a state of disease, and each of the above manifestations becomes greatly intensified. The nerves are in a still higher exalted condition, and the vascularity greatly increased. Blood-vessels appear multiplied, and are more distended and turgid. The ovaries are more swollen, more red, more sensitive, more painful, with more heat, more pain on pressure, and with a slight puffiness, or swelling, in the iliac region. Their peritoneal covering may also become involved, and perhaps, also, the fimbriated extremities of the

oviducts and other near tissues. There is an intermittent or permanent deep-seated and severe pain in the iliac region, which is aggravated if the patient attempts to rise, or even straighten the limb upon the pelvis. Pains radiate to the loins, down the thighs, and upwards to the small of the back; and there may or may not be more or less fever, hot skin, and quick pulse, — a condition of system, which, in professional language, is termed *Dysmenorrhœa*, or painful menstruation.

Painful menstruation we conceive to be *caused, ordinarily, by a highly irritated, congested, or inflamed condition of one or both ovaries.*

Prof. *Meigs* observes, "I have met with many samples of very distressing pain and tenderness in the region of the ovary, connected with painful and hysterical menstruation; and I deem I had good cause to suppose the ovaries were actually in a state fit to be called *ovaritis*" [inflammation of the ovaries]. Again: he says, "The pain of dysmenorrhœa is a pain felt in the hypogastric region, in either or both of the iliac regions, in the tractus of the ligamenta rotunda, in the sacral region, in the thighs, and, very frequently, in the course of the distribution of the obturator nerves. This pain not unfrequently extends to the whole belly, and is at times insupportable from its violence."

Dr. *Rigby*, in speaking of the pain in dysmenorrhœa, says, "The organ (the ovary) becomes highly congested or *actually inflamed;* it swells considerably, and becomes intensely sensitive. The pain is of a most agonizing character, and is frequently attended with severe nausea, or obstinate and most distressing vomiting." Again: he says, "The pain may arise from violent congestion, or an inflammatory condition of the ovary, producing the most agonizing pain which can be imagined. Always severe, it is sometimes so intense as almost to deprive the patient of self-control and consciousness, make her writhe, and even roll about upon the bed and floor, from the extremity of her

agony, and sometimes attended with insensibility and convulsive action, like epilepsy."

Dr. *Tilt* says, "J. P. Frank, a man of European celebrity, when giving an account of his travels in 1806, mentions that Dr. Cheston of Gloucester looked upon painful menstruation as produced by inflammation of the ovaries, and that, on his return to Wilna, he (Frank) attacked such cases by an antiphlogistic plan of treatment, and with much greater success than had formerly attended the exhibition of stimuli."

The pain in this form of dysmenorrhœa is exceedingly variable in different individuals. In some, it is merely temporary, continuing but a few hours, and passing away with the full establishment of the flow; while with others, the whole time is one of intense suffering, commencing with short, darting, lancinating, and paroxysmal pains in the groins, and from those points radiating in every direction, but becoming relieved somewhat on the appearance of the flow. Besides these pains, which radiate from the congested and inflamed ovary, there is usually intense headache and disordered stomach, and the patient distressed with more or less nausea or vomiting. We observe, also, very generally, more or less symptoms of hysteria, and not unfrequently, if the patient is of a nervous and irritable temperament, hysterical symptoms of great intensity, accompanied sometimes with mania.

Ordinarily, the pains radiating from the swollen ovary precede the flow from a few hours to two or three days; which demonstrates that the pain is not caused by the arrest of the flow, but by the engorged state of the ovary.

As the process of ovulation advances, and the ovaries become more and more congested and engorged, the pain continues to increase, and reaches its height just before the menstrual discharge takes place. This occurring, the puffiness and tenderness in the iliac region, and the pain, usually subside; not, however, because of the establishment of

a flow, the arrest of which was the cause of the pain, but because the inflamed and painful ovary becomes relieved in the same manner precisely as a congested and inflamed lung becomes relieved by opening a vein in the arm.

With systematic writers, this form of dysmenorrhœa is designated as belonging to the neuralgic variety; but, from the view we take of it, it is rather a condition supervening upon a morbid process going on in the ovaries. Respecting the neuralgic variety of dysmenorrhœa, Dr. *Ashwell* observes, "Dull and heavy pains in the region of the ovaries, lasting for months, are the consequence of their chronic inflammation. I mention the circumstance because they are too often regarded as neuralgic, and treated accordingly; painful menstruation and sterility being their result."

There is another form of dysmenorrhœa, and, to properly understand it, it is necessary that we should be aware that the internal cavity of the uterus is very small in proportion to the bulk of the organ, owing to the thickness of its parietes, which *almost touch internally*. A healthy uterus is capable of containing only some ten or fifteen drops of fluid. This close approximation is observable at two points; at the os uteri, but more especially at the internal orifice of the uterus, where the stricture, or co-aretation, is so great as scarcely to allow the passage of an instrument larger than a silver probe, unless force be used. This natural condition of the parts at the internal orifice of the uterus has not unfrequently been taken for a diseased narrowing of the canal.

So intimately connected as is the uterus with the ovaries, it must be readily perceived, that while such great and important changes are transpiring in the ovaries during the process of ovulation, which we have described above and elsewhere, a stimulus or influence must necessarily be transmitted from the ovary to the uterus, which must induce in the latter certain changes and modifications. *M. Costi* regards the modifications that occur as follows: "The

only modification of which the uterus becomes the seat consists in the turgescence or erethism of its tissue, and, more especially, in a considerable *thickening of the mucous membrane* (tumefaction), — a thickening which results especially from congestion of the blood-vessels and extreme development of the glands that enter into its composition, and, in certain subjects, *plait them into more or less numerous convolutions.*"

Bearing in mind the anatomical construction of the internal cavity of the womb, *the co-arctation at its internal orifice*, and bearing in mind, also, that the womb, under the influence of a physiological stimulus transmitted from the ovaries to the womb during the process of ovulation, becomes the seat of a turgescence or erethism of its tissue, and that its *lining membrane is considerably thickened* from congestion of the blood-vessels and extreme development of the glands that enter into its composition, and so much so in some subjects, that the lining membrane *becomes plaited into more or less numerous convolutions*, — bearing these points in mind, it is, we think, very readily to be perceived, how, from the transmission of a *morbid* instead of a physiological stimulus from the ovaries to the womb, a heightened action may supervene, and the congested and thickened condition of the lining membrane become so intensified and augmented, that a complete closure of the cavity at the internal or at its lower orifice must of necessity take place, completely obstructing the free passage of the menstrual fluid from the uterus. It will be readily perceived, also, how the menstrual fluid, detained in the already irritated, congested, or inflamed cavity of the womb, must stimulate its muscular tissue to spasmodic contractions for the purpose of expelling its irritating and offending contents, accompanied by a sense of fulness in the pelvic region, with pain in the back and loins, — pains of an expulsive character, and therefore well termed bearing-down pains; for they resemble the labor-like pains of a similar nature by which a fœtus may one day be expelled.

Dr. *Rigby*, in speaking of painful flow, observes, "At times, it would seem as if the mere congestion connected with the menstrual period were sufficient to bring on the pain; at others, the pains seem to be excited by the presence of secreted menses in the cavity of the uterus, and to a still greater degree if accumulated there from the formation of coagula, or from a contracted state of the os or cervix uteri."

This form of dysmenorrhœa is of no unfrequent occurrence.

There is another important consideration connected with the obstruction of the outflow of the menses and the spasmodic contraction of the uterus, and pains thereby occasioned, — a form of dysmenorrhœa not at all unfrequent.

We have seen, that, during the process of ovulation, the lining membrane of the uterus is the seat of considerable tumefaction and thickening. Besides these, there is another important change pointed out by *M. Pouchette*. We are told by him, that, during the process of ovulation, the substance of the uterus is redder, softer, less compact, more succulent, more vascular, and heavier than usual; that its lining membrane is the seat of considerable tumefaction and thickening, and, exhaling a coagulable material, *becomes covered with a beautiful flocculent exudation, which forms the membrane decidua*, — a membrane whose openings at the Fallopian tubes and at the cervix are always free and permeable, permitting the ovule and the male sexual element to pass into the cavity of the uterus.

It will be readily perceived, how, from the heightened action of the morbid process going on in the inner surface of the womb and of its neck, an exaggeration of this exudation may be induced, or an exudation of more vitality and strength, — a diphtheric exudation from the mucous surface, closing up more or less the orifice of discharge by the formation of a false membrane, inducing suppression, or an obstruction to the flow, and a painful discharge, which will be found mingled with pseudo-decidual membranes.

This exudation is recognized very generally by medical men as being an important source of painful and difficult flow. Some slight difference of opinion exists, however, as to its nature and the exact manner of its formation.

Prof. *Bedford* says, "In dysmenorrhœa of congestion there is an exudation of coagulable lymph, a diphtheric deposit similar to what occurs on the internal surface of the larynx in croup; and this coagulable lymph lines the cavity of the uterus, forming a deciduous membrane, which, during the menstrual crisis, is thrown from the organ in fragments."

Prof. *West*, however, denies that the exudation is of the nature of a diphtheric deposit similar to what occurs on the internal surface of the larynx in croup. He considers it "merely an exaggeration of the process, which, to a less degree, takes place at every menstrual period." He says, "To regard it as a layer of plastic lymph similar to that which is poured out in croup, at once suggests the employment for its removal of active antiphlogistic measures, such as experience would by no means justify. Reasoning, however, even independent of actual observation to which I have appealed, would suffice to show the fallacy of this opinion. It is utterly inconceivable that a mucous membrane so inflamed as to become the seat of deposits of lymph should in a few days return to a perfectly healthy condition (?), and yet periodically undergo the same intense inflammation, issuing in the same deposit; and this with no serious injury to its functions, and no permanent change of its structure."

Dr. *Oldham* says, "The uterine decidua is formed under the influence of an action going on in the ovary: so the membranous dysmenorrhœa is not primarily an affection of the womb, but of the ovary. In healthy menstruation, the congestion of the ovary, the engorgement of the womb, the opening of the veins on the surface of the cavity of the womb, and the flux of blood, are all in harmony; the latter

being, so to speak, the resolution of the former. but when the ovaries are unduly excited, as, for instance, from the prevalence of one or more of the numerous ways in which sexual feelings may induce them, then the uterine glands sympathetically enlarge, the lining membrane of the womb becomes raised, and the body of the womb swells out. This change in the mucous membrane goes on during the interval between the monthly periods; and, when the flow begins, the new formation is cast off, and the uterus, in the act of detaching and expelling it, becomes the seat of painful contractions."

Prof. *Virchow* says, "Dysmenorrhœal exudations are in reality the whole surface of the uterine mucous membrane; in which we may distinguish the glandular orifices, and, sometimes, very large vessels even, with the naked eye. I have repeatedly observed this condition in the dead body, where the loose and very vascular membrane was still partially attached to the uterine surface. We are, therefore, justified in calling this membrane the *decidua menstralis.*"

Dr. *Rigby* says, "The exudations in ovarian dysmenorrhœa vary exceedingly, from one or two small ragged threads to large pieces of membrane, sometimes being a whole cast of the uterine cavity; sometimes they have a stringy appearance; generally, however, they are much broken up, and their discharge brings great relief."

As regards the nature of the exudation, a great variety of opinions exists. We can see no reason, however, why the exudation may not be sometimes merely an exaggeration of the process, which, to a less degree, takes place at every menstrual period; an exaggerated decidual membrane, as is supposed by Prof. *West.* Nor can we see any reason why, from a heightened action, coagulable lymph may not be thrown out, and a diphtheric deposit line the cavity of the uterus, as is supposed by Prof. *Bedford.* Like other mucous membranes, the uterine membrane, when inflamed, will pour out serous and mucous matters as well as pus and also lymph.

This form of dysmenorrhœa, like the preceding one, is of no unfrequent occurrence.

Painful flow may also occur from sudden suppression of the catamenia from application of cold, inducing a congested and tunefied condition of the lining membrane of the uterus, or a spasmodic constriction at the os uteri.

It may also occur from tardy development of the womb, as seen in young girls in their first menstrual discharges.

Painful menstruation may and does occur, more frequently than is supposed by the profession generally, in females of a gouty and rheumatic habit. The pain in these cases is undoubtedly in the muscular tissue of the uterus. Under the head of Amenorrhœal Type, we have spoken of the liability of this condition of system whenever the menstrual discharge becomes impeded or suppressed. This condition or taint supervening, the increased congestion and irritability of the uterus at the menstrual periods strongly tending to localize it at that point, painful menstruation is imminent. That condition known and described as "*Irritable Uterus*," where the womb, though presenting no appreciable alteration, is so tender that the slightest movement causes intolerable pain, is no doubt, in very many instances, attributable to this rheumatic and gouty condition. By some, irritable uterus is attributed almost entirely to displacement.

Dysmenorrhœal symptoms may also arise from mechanical obstructions, the presence of coagula or of inspissated mucus, tumors, or narrowing of the uterine canal from ulceration or imprudent cauterizations; also malpositions, the most frequent of which is, perhaps, flexion of the neck of the womb, or doubling of the uterus upon itself. The cervix uteri bent at a right angle must, necessarily, interfere more or less with the free evacuation of the menstrual flow. The presence of coagula is owing, no doubt, to impeded secretion. Its flow is so slow as to allow of its coagulating before escaping into the vagina, where its fibrine

would at once be dissolved by the acid vaginal mucus. Some of the membranous shreds thrown off with the menstrual fluid are probably formed of coagulated blood.

Dysmenorrhœal symptoms said to arise from a too narrow canal through which the catamenia has to flow have of late years excited much attention. The idea originated with Dr. *Mackintosh* of Edinburgh, who is said to have treated many cases successfully by mechanical dilatation of the os uteri with bougies. That there may be a narrowing of the canal, both at the os and at the internal orifice of the uterus, there can scarcely be any doubt; but, in the great majority of cases, it is owing, we believe, to an internal tumefaction, chronic thickening, or a spasmodic constriction induced and kept up by a morbid process going on in the ovaries, — a tumefaction or thickening indicating not mechanical dilatation, but remedies local and constitutional directed towards the diseased menstrual organs. These, at any rate, are indicated as a first step in the way of treatment, to be followed afterwards by mechanical dilatation if the chronic thickening does not subside.

We think that Dr. *Ferguson* takes a correct view of the benefits said to have been derived from dilatation with bougies. He thinks, that, if the bougie operates beneficially at all, it does so, not by the dilatation it produces, but by inducing a new action in the parts with which it comes in contact.

When the constriction arises from ulceration of the cervical canal, from imprudent cauterization, or from a narrow cervix from defect of uterine development (instances, however, which are exceedingly rare), mechanical dilatation is the only true method of relief.

Painful flow may arise from a highly irritated, inflamed, and ulcerated condition of the os and cervix uteri; also from prolapsus uteri.

It is affirmed by Dr. *Ferguson* that sexual intercourse

immediately previous to the expected menstrual flux has excited the severest forms of the disease.

From the above it will be seen, that, ordinarily, the primary and the true seat of the morbid process known as painful menstruation is to be sought for in the highly irritated, congested, or inflamed condition of one or both ovaries, which condition is induced under a great variety of circumstances: from application of cold; from falls upon the knees or sacrum; from horseback riding, dancing, or long and fatiguing walks just previous to, during, or immediately after, the menstrual flow; from great muscular effort, as the lifting of heavy weights; from tight dresses, corsets, and the various bands and strings around the waist, preventing a free return of the blood from the pelvis; from retention and suppression of the catamenia; from gouty and rheumatic habit; from solitary practices, over-exciting the nervous and sexual system; from excessive use of the stimulus of sexual intercourse, and, lastly, and more frequently than from all other causes combined, from impairment of the general health through want of the natural and appropriate stimulus of the sexual organs, — sexual intercourse. From want of their natural stimulus, the sexual organs take on an irritable condition, which condition, if not soothed and calmed by the only and great physiological remedy, — normal exercise and gratification, — very soon emerges into a state of disease: in other words, the ovaries become congested or inflamed. Dr. *Ashwell* says, "Single women are particularly prone to it (painful flow), and it often seems to be associated with a tendency to strong meatal emotions."

Dysmenorrhœa is ordinarily an infirmity of young unmarried females, and induced, as we believe, in the great majority of cases, by sexual abstinence and ungratified sexual desires, and, in too many cases, from solitary practices consequent upon unsatisfied desires. "Dysmenorrhœa," says Dr. *Ashwell*, "is often cured by marriage;" and for the very

obvious reason, that, when the proper and natural stimulus of the sexual organs is applied, it elevates their functions to the natural and typical standard of health. Distasteful though the doctrine may be, yet it is as true as holy writ, that an equal development of ALL our organs through their normal exercise and gratification is necessary. No one class of virtues can be elevated above others with impunity. A virtuous physical life is as incumbent as a moral one, and normal sexual exercise as important to our health and happiness as either.

IX.

HYSTERICAL TYPE.

THIS type is characterized by an assemblage of symptoms, remarkable, generally, for their capriciousness of character, and the changeableness of their seat; manifesting themselves ordinarily, *but not always*, in a paroxysmal form, and simulating many serious and opposite diseases.

As regards the true nature of hysterical phenomena, a great variety of opinion has existed, and still exists. The early fathers of medicine adopted the idea that the uterus was an animal, and occasionally wandered up and down the body; and that the phenomena of hysterical disturbances were attributable to these wanderings about the bowels, down the limbs, up to the liver, stomach, and throat. Many have adopted the idea that the phenomena are attributable to a morbid condition of the uterine nerves; many, to a morbid condition of the stomach and alimentary canal; some few, to congestion of the lungs and the heart; many, to a morbid condition of the nervous system generally, to a morbid condition of the brain and cerebral nerves, to a morbid condition of the spinal cord, to "spinal irritation," disorder of the lower portion of the spinal cord, displacement of the uterus, "irritable uterus," ulceration of the cervix uteri, &c.

That many of the conditions mentioned above are often productive of hysterical manifestations, there can be no question; for, taking the various forms that arise in connection with their symptoms, the general appearance, constitution, &c., of the patient, we have sufficient proofs that

all are not produced from one kind, but by a multitude of causes: in fact, they are induced by any circumstance capable of producing a peculiar excitement of the nervous system. Whatever may be the location of the primary irritation, the nervous centres are always acted upon, and, through these, the parts that are the seat of the reflex action.

We believe, however, that, ordinarily, the disordered manifestations arise directly or indirectly from disease of the sexual system, and, generally, from disease of the ovaries, induced by a disordered state of the sexual feelings.

That these disordered manifestations are connected with a weakened and excitable state of the nervous system depending upon a similar state of the numerous and important nerves of the ovaries, is evident from the fact that the peculiar manifestations do not occur before puberty, nor after the close of menstrual life.

Those sympathies and the multiplicity of manifestations which are hysterical in their character, that supervene from the changes produced at puberty, when the ovaries take on the process of ovulation; the capricious wishes and tastes, or *longings*, during pregnancy, when the process of ovulation is stayed, and at "change of life," when the process is suspended, and the organs become atrophied and shrunken, — all point to the ovaries as the primary source of the peculiar nervous excitement. So, also, the sympathies excited by early or late marriages, continence, sexual disappointment, excessive indulgences or venery, marriages immature or physically disproportionate (all of which tend to light up disease in the ovaries), point to those organs as the seat of the hysterical manifestations. We observe these disturbances, also, in females laboring under suppression or retention of the menses, and see them co-existent with leucorrhœa, dysmenorrhœa, menorrhagia, and in those subject to miscarriage; all of which point to the ovaries.

We have seen, that, during the later days of the ripening

process, or maturing of the Graafian cell and germ, blood-vessels which were before invisible to the naked eye rise up into view, interlacing each other in great profusion over the whole surface of the ovary, more especially surrounding the swelling follicle; that the nerves are in a highly exalted condition, and the entire organ engorged, swollen, red, and not unlike the swollen and sensitive gum over a growing tooth: and Prof. *Meigs* very truly remarks, "If an advancing tooth may excite such maladies as are attributed to dentition in children, what must be the extent and power of complication of the ovary in the monthly act of eliminating the ovulum!"

All are familiar with the irritation and disturbance occasioned by dentition, and know that spasms, convulsions, derangement of the liver, stomach, and bowels, — morbid results arising from the transmission of a morbid stimulus from the sensitive and swollen gums to the spinal cord, and from thence reflected to muscles and organs that become involved, — constitute a fearful outlet to human life in children.

In women, the nervous system is wonderfully susceptible; and all local irritations are propagated with such celerity and intensity as to constitute, physiologically and pathologically, the great mental, moral, and physical character of her system. If, then, spasms, convulsions, and a multiplicity of other derangements, are the morbid results of a swollen and sensitive gum, what may not be the disturbances transmitted from the swollen and sensitive ovary to the spinal cord, and from thence reflected to the brain, the heart, the lungs, the stomach, the liver, the eyes, ears, arms, legs, muscles, indeed to every organ and tissue of the body, in those whose originally susceptible nervous system has been rendered more than naturally mobile by an injudicious system of mental, moral, and physical training, or by any other weakening and enervating influences!

The word "hysteria" was used by the earlire medical

writers to designate certain morbid phenomena, emanating, as was supposed, from a diseased uterus. The term, although an unfortunate one, is still retained, but more as a matter of convenience, and to save the adoption of a new name, than from any belief that the uterus is the seat of the multiplied disorders. A name is of but little consequence so long as true pathological conditions are understood.

A greater misfortune than its name is, that it has been usually classed among the so-called "nervous diseases," and regarded as a "nervous derangement." Who, for one moment, would regard the spasms and convulsions caused by teething as a "nervous disease," a "derangement of the nerves"? No one. Why, then, call the muscular spasms, convulsions, and other nervous phenomena which occur in young women just previous to or during the process of menstruation "nervous diseases," "neuralgias," "hysteria," &c., unless we employ the terms to cover our ignorance, or to furnish a receptacle for those cases in which we are, through ignorance, unable to trace effects back to causes?

The phenomena of hysterical paroxysms are well known. They occur between the age of puberty and the cessation of the catamenial function, or during menstrual life, and, ordinarily, just previous to or during the menstrual flow, while the ovaries are in an engorged, swollen, and sensitive condition. The paroxysm lasts from five or ten minutes to hours and even days. Hysterical disturbances may also occur during the menstrual interval, and after "change of life," in consequence of the morbid condition in which the ovaries remain.

The higher and luxurious ranks of society are more subject to these disturbances than the lower classes. Improper mental, moral, and physical training have no little influence in the production of these disordered manifestations, as we have already seen. Touching this matter, Prof. *J. Conolly* of the London University very truly remarks, "Medical philosophers declaim, and will long declaim, in vain, against

a system of education, which, apparently solely directed to securing an advantageous establishment to young females, leaves them at once artificial and ignorant; full of terms of many kinds of knowledge, but wearied or disgusted with all; trained to subdue the feelings only so far as to form alliances from selfish motives, but unprepared to be companions of intellectual men, or to bear the neglect which their insipidity, or motives as selfish as their own, too often entail upon them."

The social position of women, observes *M. Georget*, "renders the sex, already subjected to peculiar ills from their organization, the victims of the most acute and painful moral affections. Their moral existence is entirely opposed to their faculties; they possess a will, and are constantly oppressed by the yoke of prejudices and social arrangements in their infancy and early life, of a husband in their youth, and of indifference in old age. Sensible and loving, they must only love when the master orders them: they are forever constrained to concentrate within themselves the most powerful passions and the gentlest inclinations; to dissemble their desires; to feign a calmness and indifference when an inward fire devours them, and their whole organization is in tumult; and to sacrifice to a sense of duty, or rather for the happiness of others, the happiness and tranquillity of a whole life. . . . The education of young women, of which the tendency ought to be to repress the affective faculties, already too prominent, has, as now conducted, opposite effects. A mother would be in despair if her daughter did not give early indications of *acute sensibility;* and nothing is neglected that may endow her with this fatal present. Inaction of the muscular system; the cultivation of music; frequent parties, balls, and public entertainments; the understanding unemployed; or books perused which do but excite certain feelings, and nourish illusions contrary to the actual state of society, — such are often the different influences to which girls are subjected at an age when the powers

of the mind should have quite a contrary direction. The end answers the means: one order of faculties alone is exercised; and this will become predominant over the reasoning faculties, and the cause of a host of vaporous, hysterical, hypochondriacal, and maniacal disorders."

As has been remarked, hysteria was so named on account of its supposed origin from uterine disease; but, although almost exclusively and universally met with in females, it has been observed in males, and, consequently, cannot be said to depend on morbid stimulus emanating from the womb alone. That hysterical disorders occur in male subjects, we have the testimony of *Meigs*, *Conolly*, *Whytt*, *Ferriar*, and others. Although of extremely rare occurrence in males, hysterical phenomena may be induced, as they are said to be in females, sometimes, by injuries, inflammation and disorganization of the spinal cord, disease of the stomach and intestines, intestinal irritation from improper diet, depraved secretions, worms, flatus, acidity, in fact, by any circumstance capable of producing a peculiar excitement of the nervous system; but we believe that the disordered manifestations ordinarily arise, directly or indirectly, from an irritable or diseased condition of the *testes*, — a condition induced by erotic excitement, solitary practices, vicious sexual indulgences, by deferred marriage, celibacy, sexual disappointment, &c., — all tending, when the erotic passion is experienced in any strong degree, to produce an exaltation of the vascular and nervous condition of the testes, in the same manner as like emotions light up disease in the ovaries of the female. While the male is almost totally exempt from the liability of these disordered manifestations, the female is exceedingly prone to them; and this strongly-marked difference between the sexes is readily accounted for in the fact that the susceptibility of the ovaries to take on disease is very materially increased through the monthly process of ovulation, which process is of itself "*almost* a disease."

Hysterical manifestations are *effects*. They are the result of reflex action. They occur from a derangement of the cerebro-spinal nervous system, induced generally, but not always, by a pathological condition of the sexual system, and ordinarily, as we believe, of the ovaries; and can only be cured by the removal of the morbid process which occasions them. Sir *Benjamin Brodie* relates some striking instances in proof of the ovaries being ordinarily the source of the infirmity; such. for example, as pressure on a sensitive ovary producing the hysteric paroxysm.

As the swollen and sensitive gum over an advancing tooth is capable of calling into sympathy other parts, and producing muscular spasms, diarrhœa, &c.; or as a wounded nerve in the foot is capable of calling into sympathy the brain, resulting in epilepsy: so may disease of the ovaries call into sympathy other and distant parts of the economy, and we have all the multiplied symptoms of that Protean malady which simulates so many other and sometimes serious disorders.

When the hysteric derangement once becomes established, inordinate mental or physical effort, sudden mental emotions, or even the slightest cause, sometimes is sufficient to excite the paroxysm.

The various forms of disease which it simulates, the capricious character of its symptoms, and the changeableness of their seat, are well exemplified in a case given by Prof. *West*. He says, "A young woman was admitted into the hospital a few years ago in a state of extreme suffering; her countenance was very anxious; she lay in bed with her knees drawn up, dreading the slightest movement; her abdomen was intolerant even of the slightest pressure. She was reputed to have peritonitis (inflammation of the lining membrane of the abdomen), and had been bled for this, as well as abundantly salivated, before her admission, yet without relief. But, with all this, her skin was perspiring, and her pulse was soft, and not increased in frequency.

Her history was, that, after vague uterine ailments for months, she was suddenly attacked by a violent pain in the womb, attended with bearing-down efforts equal in intensity to those of labor. These subsided, but the pain was referred to the bladder; and desire to pass water became very frequent. This, too, abated; and the next complaint was violent pain in the shoulder, which was encountered by active measures for the relief of alleged inflammation of the shoulder-joint; and, the pain in the shoulder suddenly ceasing, the severe abdominal suffering at once succeeded it. A hot hip-bath gave almost immediate relief, though the patient screamed when moved in order to be placed in it; and a full dose of opium was followed by some hours of quiet sleep. The next day, no pain was complained of, except over the pubis, and this soon disappeared under the use of anodynes; and steel and good food completed the cure of a case of *hysterical* peritonitis." Such are the phenomena sometimes exhibited; but the peculiarities of each individual constitution occasion a great variety and irregularity in the phenomena.

In some, the manifestations exhibited are those of a strictly paroxysmal character. The patient, without any appreciable cause or premonition, under the influence of some slight mental and moral perturbation, becomes suddenly oppressed by a sensation as of a ball or solid body in some part of the abdomen, usually in the left iliac region, producing a vermicular motion of the abdominal muscles, or alternate elevation and depression of the abdominal surface, and rising upwards to the stomach, and then to the throat, filling its entire calibre, producing the feelings called *globus hystericus*, and followed sometimes by a violent fit of laughter, alternating with crying and sobbing. After a longer or shorter time, the paroxysm passes off, and the patient is again apparently well. In some cases, the paroxysms are preceded by a general uneasiness and oppression, with a feeling of stiffness about the throat, headache,

cramps, great nervousness, &c., warning the patient of the approaching attack. In the more severe cases, there is much agitation both of body and mind; and the patient falls down motionless, or with trunk and limbs agitated with strong convulsive movements, or the body so straightened out and bent backwards by muscular contractions as to rest on the heels and back of the head, with the throat projecting, and the veins of the neck so much distended, and the face so flushed, as to induce fears that apoplexy may supervene; the breathing slow and laborious, with nostrils dilated; the abdomen distended and flatulent; the heart palpitating; the vision and hearing impaired; the eyelids closed and tremulous; the power of articulation suspended; and the jaws often set. Intermissions take place, but followed by renewal of the violence of the contortion, which continues for a longer or shorter time, accompanied with sobbing and laughing, beating of the breast or the pit of the stomach, in which situation there is often violent pain; or she carries the fingers to her throat, as if to remove some oppression there, followed by a copious secretion of limpid pale urine, fatigue, and extreme prostration, the patient lying trembling, and starting at the slightest noise or the gentlest touch. After such an attack, there is sometimes a temporary impairment of some of the voluntary and involuntary muscles. Paralysis of an arm or leg, a cheek or the tongue, and sometimes of an entire side of the body, is seen; also loss of voice or hearing, sight, taste, and smell. Ordinarily, however, the after-symptoms are those of extreme prostration and fatigue only.

The above are the more prominent phenomena in the REGULAR form of the complaint, — phenomena which are well known to most physicians, and easily recognized, for they are peculiar to the affection; not so, however, in the IRREGULAR form, at least, by *many* physicians, — a form which mimics the symptoms of various other diseases of a much graver nature, which generally supervene with-

out the occurrence of any decided paroxysm. This form has been and is now very imperfectly understood by many practitioners, and has been, in consequence, met with a treatment vague, injudicious, and pernicious.

There is scarcely any organ or tissue of the economy that may not become so affected by this reflex action as to excite suspicions of serious disorder, so closely does it simulate organic disease; and in no class of cases are errors in diagnosis so frequent. How often have we seen the swollen and sensitive ovary call into sympathy the stomach, producing all the symptoms of an aggravated case of dyspepsia, with nausea, vomiting, pain, heartburn, &c.! and how often has this condition been treated for months and years with remedies directed towards the stomach, but all to very little or no purpose, and for reasons obvious, — the effect was treated instead of the cause! Often have we seen the hip and knee joints the seat of this reflex action that had lasted for months. They had been treated as cases of serious disease of those joints, with leeches, blisters, stimulating embrocations, &c., to the parts, but the cause, the true seat of the disease, and the nature of the malady, was not even dreamed of by the medical adviser! We will call the attention of the reader to an observation of Sir *Benjamin Brodie*. He says, "I do not hesitate to declare, that, among the higher classes of society, at least four-fifths of the female patients who are commonly supposed to labor under disease of the joints labor under hysteria, and nothing else." We have also seen the voluntary muscles so affected as to become entirely paralyzed. Not long since we saw a lady in S——, Mass., who was attacked some twelve months previously by violent neuralgic pains and spasmodic contractions of the right limb, which, for several months, continued with different degrees of violence, but which, passing away finally, was followed with paralysis almost as complete as that which arises from compression of the spinal cord. The patient had for months sought relief from remedies almost

without number, but without success; and for the reason that remedies had been directed to the limb, and the source of the infirmity entirely overlooked. Sometimes the muscles become spasmodically contracted, lasting for months, either permanently, or with remissions and renewals; and they sometimes become the seat of most distressing neuralgic pains, which may become permanently located, or migrate from one part to another. Neuralgic pains are of no uncommon occurrence, and may be located in any part of the body; in the feet, calves of the limbs, knees, thighs, and hips, giving notions of rheumatism, and disease of the joints; in the abdominal muscles, giving rise to suspicions of peritonitis; in the liver, stomach, and right shoulder, with obstinate sluggishness of the bowels, and a depraved appetite, giving rise to notions of "liver-disease;" indeed, no organ or tissue of the body is exempt. One of the most frequent localities of this pain is under the left breast. Both breasts are not unfrequently in a highly irritable state; and sometimes the glands become enlarged and indurated, so much so as to excite apprehensions of "tumor" or cancer.

Besides spasmodic contractions of the limbs, we frequently see spasms of the abdominal muscles, causing ridges or knots on the surface. The abdomen is subject also, from the same cause, to distressing tympanitic distention, which induces great oppression, dyspnœa, and pain. These attacks supervene, ordinarily (but not always), shortly after a meal, lasting some two or three hours, and then subside, after a large quantity of gas has been got rid of by eructation. The accumulation of gas in the stomach and bowels, with loud rumblings and sudden eructations, and swelling about the waist, is of very common occurrence; and the excessive distention not unfrequently gives rise to notions of dropsical effusion. This tympanitic condition is owing, probably, to partial paralysis of the muscular coats of the bowels.

The heart not unfrequently becomes the seat of this reflex action; and the most violent palpitations ensue, which have not unfrequently been mistaken for "heart-disease." Violent and irregular action of the heart, with hurried and oppressed breathing, are frequent and common. In some, the action of the heart is simply an irregular movement; while with others, it beats violently, thumping against the ribs, and shaking the whole body.

The lungs are frequently the seat of this disturbance, and we have the most distressing attacks of spasmodic asthma: indeed, no organs of the body sympathize more with the nervous system, under the various impressions made upon them, than those concerned in the function of respiration; and the slightest causes are oftentimes sufficient to lead to an irregularity of breathing, sighing, and sobbing, or an oppression simulating asthma. This oppression and painful breathing is often taken for inflammation of the lungs, and pleurisy, and treated as such. The most frequent disturbance of the lungs is a dry, hacking cough, scarcely observed by the patient, but narrowly watched by surrounding friends, and by them, and not unfrequently by the attending medical adviser, pronounced premonitory symptoms of consumption; yet there is no evidence of any disease of the lungs, no dyspnœa, no fever, no quickening of the pulse, no evidence of any catarrh of the mucous membrane, no expectoration, either purulent or mucous, nothing, in fact, but a continued hack, manifestly depending upon sympathetic influence of the ovaries.

Loss of voice, loss of hearing, loss of sight, partially or entirely, with derangement of smelling and taste, are also sometimes observed. We have seen many cases of partial loss of voice and hearing, and several cases of partial and entire loss of sight, also perverted sensations, such as inordinate thirst and hunger. When the eyes become the seat of this reflex action, the patient usually experiences flashes of light, or sees objects floating about in the air, or passing

and repassing before her; surrounding fixtures appear to move or dance about, or she sees every thing double. A patient not long since came under our care, a young woman, whose eyes became thus affected. To her, every thing appeared double. The needle between her fingers; the seam that she was sewing; the streets, with the passing carriages; and the trees along the streets, — all seemed double, and one placed above the other. This condition continued for several months, and was succeeded by total blindness, at which time we first saw her. There had been no pain or increased vascularity of the eye, and the organs looked as though perfectly healthy.

When the ears are affected, a rushing noise, or an incessant buzzing or ringing in the ears, is ordinarily first experienced, which is, after a longer or shorter time, followed by the sense of hearing becoming more obtuse than usual. When the deafness is only partial, one ear is ordinarily much more affected than the other.

We have known the salivary glands to become the seat of this reflex action, and the most profuse secretion of saliva kept up for weeks and months, varying in quantity from eight to twenty ounces per day, and, what was most remarkable, without producing any emaciation, or seeming in the least to exhaust the powers of the system.

One of the most frequent of these reflex disturbances is headache, which is, ordinarily, confined to some small spot, as, for instance, in the top of the head, or in the forehead, or over one eye, or at the base of the brain, with tenderness of the scalp, and intolerance of light and sound: ordinarily, however, the patient is seldom affected by both sound and light; if she suffers from the first, she experiences no discomfort from the latter.

The brain and mental faculties not unfrequently become involved, presenting symptoms of peculiar and varied character. Viewing every thing about her through an unfavorable medium, the patient becomes melancholy, unhappy,

desponding, and her mind filled with strange forebodings and fears, if not for herself, for her friends around her. Sometimes distrust takes possession of her; and she doubts the good faith and purity of motives of every one about her. At other times, she becomes fretful, capricious, and as changeable in her thoughts and feelings as the colors of the prism. Joy and melancholy, hope and fear, anger and cheerfulness, trust and distrust, mingle before her fancy in bewildering confusion. *Sydenham* correctly and beautifully describes the temper and mental state. He says, that, "upon the least occasion, they indulge terror, anger, jealousy, distrust, and other hateful passions, and abhor joy and hope and cheerfulness; which, if they accidentally arise, as they seldom do, quickly fly away, and yet disturb the mind as the depressing passions do: so that they observe no mean in any thing, and are constant only to inconstancy. They love the same persons extravagantly at one time, and soon after hate them without a cause: this instant they propose to do one thing, and the next, change their mind, and enter upon something contrary to it, but without finding it. So unsettled is their mind, that they are never at rest."

Hysterical patients are very generally subject either to distressing wakefulness or troublous dreams. Their chief complaint, oftentimes, is their inability to fall asleep. Often they pass the entire night in a restless wakefulness, and sometimes several nights in succession, with scarce an hour's sleep or rest, — rolling from one side of the bed to the other.

Symptoms arising from diseased ovaries, calling into sympathy the different organs and tissues throughout the economy, are almost numberless, the most prominent of which we have already given under the head of Symptoms, to which we refer the reader.

Sydenham makes the observation, that "hysteria is not more remarkable for its frequency than the numerous forms

under which it appears, resembling part of all the distempers wherewith mankind are afflicted; for, in whatever part of the body it be seated, it immediately produces such symptoms as are peculiar thereto: so that, unless a physician be a person of judgment and penetration, he will be mistaken, and suppose such symptoms to arise from some essential disease of this or that particular part, and not from hysteric passion." *Ashwell* very truly says, that "hysteria seems to single out and affect every organ and every function which belongs to the true spinal system."

Hysterical manifestations, as has already been remarked, are induced not from any single cause, but from a multiplicity of causes. They may arise from irritability of the ovaries, or their destruction; from inflammation or obliteration of the Fallopian tubes; from an under-sized, inflamed, indurated, or displaced uterus; ulceration of its neck; from disease of the bladder and rectum, and especially from impacted fæces. We have several times seen the most violent paroxysms of hysteria induced by the lower bowels becoming distended with impacted fæces, upon the removal of which every trace of the disturbance disappeared.

Injuries, inflammation, and disorganization of the spinal cord may produce effects resembling hysterical phenomena, and the same may also be said of disease of the stomach and intestines. Intestinal irritation from improper diet or depraved secretions, worms, flatus, acidity, &c., are all occasional causes of the paroxysms, which may be induced from or without any sudden mental perturbation, as anger, fear, grief, joy, &c.

That the above conduce to hysterical manifestations, whether by inducing disease in the ovaries, or not, is beyond question. *They are, however, only occasional causes.*

That the disturbed manifestations are *ordinarily* connected with a disordered state of the sexual feelings induced by celibacy, disappointment in love, deferred marriage, early widowhood, and sexual disappointment, is beyond all cavil

or dispute, the truth of which is amply attested in the fact that they are seldom, if ever, witnessed in women happily married, but are both frequent and common in the single woman, especially if her passions are strong; in widows; in barren women; in those married, but where, from physical disproportion on the husband's part, the venereal act is but imperfectly performed; and in those who are indifferent to or dislike their husbands; in all of whom sub-acute inflammation of the ovaries may be suspected to exist.

From a faulty physical and moral education, the nervous and sexual system becomes weakened and excitable, and, unable to ward off the force of unsatisfied desires, passes into a state of disease. Sexual feelings are excited, but not gratified; and Nature revolts. The whole force of the commotion falls upon the sensitive ovaries, the acknowledged centre of the sexual system. They receive the entire shock: and their nerves become morbid and irritable; their vessels become enlarged; the blood is impelled to and retained in them; and congestion and inflammation are imminent.

We are told, that in India, among the Hindoo women, hysterical manifestations are almost unknown. We may see the reason of this in the fact that it is a matter of religious feeling among that people to procure a husband for the girl as soon as menstruation first begins. They think it a sin that a single potential child should be lost.

Hysterical disturbances are more common in the higher orders of society: they are, however, seen in all classes, from the palace to the hovel. Among the lower classes, provocatives of desire are comparatively few; but in the upper classes, from the want of necessary employment to occupy the mind, from the want of exercise in the open air, from novel-reading, poetry, dancing, theatricals, close proximity and fond toyings with the opposite sex, the sexual feelings become more prominently developed, and sexual desires elevated to the highest pitch, which, if ungratified, fail not to light up disease in the sensitive ovaries,

and transmit those disordered sensations, or an irritation which may, through the medium of the sympathetic chain of nerves, compromise nearly all the important organs of the economy, such as the brain, the lungs, the heart, the stomach, the liver, the womb, the spinal cord, &c.; giving notions of "general disease," — a term which so often carelessly falls from the lips of medical men. We say "carelessly;" for they know, or ought to know, that all these multiplied symptoms have one common origin; and this is, very generally, the menstrual organs.

How overwhelmingly important that correct notions should be entertained of an infirmity that affects so large a proportion of womankind! — an infirmity that Prof. *Ashwell* calls "the incubus of female habit," and which *Sydenham* declares to "constitute one-half of all chronic diseases."

Unless we properly understand these things, what hope is there for suffering woman! and what may be the quantity of useless drugs that she takes into the system, which will not only do no good, but prove most disastrous to the constitution! Of what avail are medicines, so long as the universal law of normal exercise and gratification are unheeded and uncomplied with; so long as no natural outlet be given to the most powerful of all the passions; so long as the cause of the infirmity is still operating?

When we consider that the great majority of women pass a large part, and an immense number the whole, of their lives without any gratification of the sexual feelings, or satisfaction of that yearning wish to love and to be loved, which is the divinest and strongest instinct in the breast of young people; when we consider who are the victims (the single, widows, and women unhappily married); and when we consider the powerful disturbing influence which the systematic denial and disappointment of the strongest of our natural desires must have upon a delicate and susceptible girl, upon her sensitive and susceptible ovaries, — we shall no longer, if we correctly understand

Nature and her requirements, wonder at the multiplicity of ills peculiar to women.

Is it possible to avoid the conclusion, that with their natural emotions checked and thrown back upon themselves; that with the stream of feeling, which, instead of being allowed to flow onward in its natural channel, is pent up in the gloomy, secret caverns of the mind, causing there a deluge and a desolation; that that which should have been the young girl's pride and delight becomes her shame and her torture, and that she must conceal, must studiously repress, her eager and beautiful emotions, — is it, we repeat, possible to avoid the conclusion that these are the main causes and the great source of all her ills? Is it to be wondered at that Nature revolts, and lets loose tumultuous hysterical emotions as a just punishment for the transgression of her laws? Is it to be wondered at that a force so intense, so universal, so determinative as the disturbing power of ungratified sexual feelings is capable of influencing the whole physical, intellectual, and moral nature of the subject of it? Touching the powerful disturbing influence which denial of the strongest of our natural desires has upon the system, let us refer once more to remarks made by Prof. *Meigs*. He says, that "the whole spinal cord vibrates under the tension of the vital forces, roused to excitement by the reproductive and aphrodisiac power; cries, sobs, peals of immoderate laughter, tears in floods, stolid silence, perfect cataphora, spasms tonic and clonic, tetanoid closure of the jaws, the most extraordinary rhythmical movements of the symmetrical halves of the body (zygozoar spasm), rigid opisthotonos, sudden enormous meteorisms, profound coma, excessive secretion of limpid urine; all followed suddenly by the profoundest calm of the constitution, and a feeling of the sweetest complacency and amiability, — such are the symptoms which leap, as it were, out of profound repose, with a sudden and startilng exaggeration." — *Disease of Females.*

"Is it the part of a wise man," says a London writer, "to refuse to see these facts? Whatever we may be able to do to cure or to prevent these enormous evils, their main cause is undeniable. Men refuse to look at the melancholy results of sexual abstinence, and rather blame the patient for indulging in sexual feelings which cannot be gratified. It may not be that their peculiar idolized virtue should be attended by so much misery: the fault cannot surely be in it, but must be in our own original sin and perverse nature. Thus, according to the inveterate error of the Christian moralist, they lay the blame on Nature the all-perfect, and hopelessly mourn over the evil nature of man, instead of trying to remedy their own erroneous system. . . .

"The treatment of hysteria is, as may be expected, often very difficult. The means usually applied are, as is readily understood when we reflect on the general cause of the disease, and its nature, which is often more mental than bodily, totally irrational, and unsuited to produce a radical cure. Dr. *Ashwell* acknowledges this; he says, that few physicians desire the treatment of hysteria; for the symptoms are so variable, one springing up after another, that different remedies are successively tried and abandoned, till both the doctor and patient are worn out, and the disease suffered to take its course. In reality, Love is the only physician who can cure his peculiar diseases; and it is in vain for a medical man to expect to supply his place. The passions which have been repressed and thrown into disorder must be gratified, and the proper healthy stimulus given to the sexual organs, so as to restore their nervous balance, before we can have any rational expectation of a cure. The mind will thus become contented and happy, the tumultuous emotions be calmed and restored to health, and the sexual organs will regain their normal state. Dr. *Ashwell* says, that marriage frequently cures hysteria; but hysterical women often make bad nurses, having scanty and unnutritious milk. A sexual intimacy is the grand remedy in hysteria. . . .

"The main object of treatment in all hysterical cases should be to go to the root of the disease, and remove the morbid state of the sexual system and feelings, which causes the general nervous irritability. It is in vain that we treat symptom after symptom, — headache, colic, fits, or mental irritability, vehemence, or caprice. We may overcome one enemy after another, we may load the patient whether with blame or compassion; but we cannot cheat Nature: and, until the required remedy is applied, the radical sexual disorder in mind and body will continue, and only become aggravated by continuance.

"It is a miserable thing to see the usual treatment of an hysterical girl. Friends and relations either laugh at or dislike her; for irritability, peevishness, and often violent temper, are a part of the disease; and that effeminate amiability which is so highly lauded in the female character, at the expense of the far higher virtues of force and independent energy, is sadly defaced by stern Nature, whose destructive tendencies will not be silenced in either sex. Such unkind and mistaken treatment often aggravates the disease, and pushes it to the verge of insanity, or, frequently, into complete insanity; for hysteria often ends in this where the mind is naturally weak. The medical man must generally content himself with treating symptoms, and directs his attention chiefly to bracing the general health, and, at most, palliating the affection. . . .

"Every young mind, whether in man or woman, burns for romance, love, and adventure: these are the great natural stimuli to the health and virtue of youth, the pole-stars which cheer us on, and shed a glory on our every-day working life. At home, among her relations, the young hysterical girl has, in many cases, a constant feeling of degradation; the emotions which she instinctively feels are the most ennobling and exalting for her are oldly looked upon or laughed at; her romantic longings are sneered down, and the main springs of her virtue trodden in the

dust. Familiarity in the home circle far too often breeds contempt; and it is very frequently a love-affair that first shows a girl what she can be, and elevates her into another sphere of self-respect. In countries such as Scotland, where spiritual puritanism reigns triumphant, romance and love have no quarter shown to them; and all the ardent sexual aspirations meet with double discouragement. Kindness and reverence should be used towards the hysterical, instead of the contemptuous way in which they are usually treated, so as to increase their self-respect and self-control. A great part of the disease consists in a sense of weakness and want of self-confidence. How can a girl have confidence in herself, if all around laugh at her, and treat her feelings as unreal! It must never be thought that hysteria is an unreal disease. *It is a weakened state of the nervous system, physical and mental;* and the physical weakness and irritability are just as marked as the mental. It is easy to laugh; but it is rather the part of the wise and feeling heart to reverence and to cure.

"One great reason of the simulation of various diseases, and also of the vague and unreal nature of many of the sufferings of which the hysterical complain, is, that they are forbidden to disclose the real cause of their sufferings or of their unhappiness. In every sexual disease, both in man and woman, and especially in the latter, the miserable necessity for concealment makes the patient invent other subjects of complaint; and thus sexual patients are almost always accused of hypochondria, and falsification or exaggeration of symptoms. When a man or a woman suffers, whether in mind or body, they must give some reason for it; and if they are forbidden, by our unnatural ideas of propriety, to speak freely of the real cause, they are forced into deceit: and this is one cause which greatly heightens the miseries of all these diseases, and is a source of great degradation to the sufferer. No diseases cause such a feeling of insufferable degradation as the sexual ones, and, in a

minor degree, those of the excretory organs. Not to believe in an individual is one of the greatest injuries we can do him, and is as philosophically false as it is unfeeling. It has been truly and beautifully said, 'Love thy neighbor as thyself;' but the precept, 'Believe in thy neighbor as thyself,' is not less true, and still more needed among us. Every man believes in himself, and knows that his nature is true at bottom; that his joys and his sorrows are real, although his external character may be at variance with the inner man. But it is the part of the moralist and the physician to endeavor to see into this inner man, which is always real, and seek to make the exterior correspond with it. It is only when the inner man is in harmony with the outer, and when a person thus lives a true life, that there can be satisfactory happiness. Nature always strives to be true, and to have a true expression; although in our complex and imperfect society, her purpose is often defeated.

"If a genital disease co-exist with hysteria, it will be necessary to cure it; but, in many of the functional genital diseases, by far the most effectual cure is sexual intercourse: and medicinal remedies will be needed chiefly in the inflammatory diseases, and in cases where sexual intercourse and child-bearing prove insufficient. It is important to remark, that sexual intercourse may frequently fail thoroughly to cure a sexual disease in woman; while child-bearing, lactation, and the thoroughly new world of physical and moral emotions which is thus opened up to her, and which is necessary in that sex to complete the chain of the sexual functions, may succeed. The immense impulse that is often given to the health of woman by child-bearing, the change which it produces, dispelling morbid states of body and mind, and giving a renewed freshness and vigor to both, in those cases where it proceeds naturally and happily, is well known. If it be not possible to procure for hysterical women these great remedies, let us not flatter ourselves that the disease

will yield throughout our society to any other means. If we must still adhere to the old routine, to valerian or musk, assafœtida and opium, to lecturing, persuading, or upbraiding, *the cure of hysterical disease is a physical and moral impossibility.*

"As to the still more important question of the *prevention* of this wide-spread malady, the same remedy which will cure will also prevent, like all the natural remedies. The only possible mode of preventing hysteria is by fortifying the general system by the appropriate exercise of all the bodily and mental powers from childhood upwards; and, more especially, by providing for the healthy exercise of the sexual organs and emotions as soon as Nature requires this. If we could possibly attain this so desirable aim throughout society, hysteria would almost disappear, instead of being, as at present, probably the most widely spread of all diseases, and therefore creating an enormous mass of misery. It is the most wide-spread of all diseases, simply because, of all the human organs, the female genital organs and sexual feelings are placed, at present, in the most unhealthy circumstances.

"Woman's peculiar torments begin at puberty; and from that time, in innumerable cases, till her marriage, she is the constant prey of anxiety. Ungratified desires distract her, endless temptations and excitements surround her, marriage is for her so critical a step; and yet she has not the power of selection. The fatal question, Shall she be married at all? gradually dawns upon her, and the clouds and whirlwind of anxious and conflicting passions darken her sky. If these be not natural and real sufferings, and if we are not to recognize and do all we can to remedy this fearful state of matters, let us close at once the book of human knowledge, and give up the farce of philosophy and philanthropy. It is our part to investigate diligently, and recognize all truths; nor to bend what we see to a preconceived theory, but rather to form, if possible, a theory

based upon all the natural truths. If we do thus in the case before us, we will see, that unless we can remove the main cause of the hysteria, namely, insufficient sexual gratifications, it is totally impossible to prevent that disease. Let us look this truth steadily in the face, whatever difficulties it occasions us."—*Elements of Physical, Sexual, and Natural Religion.*

In conclusion, we repeat, that hysterical disturbances arise ordinarily from disease of the sexual system, and generally, as we believe, from disease of the ovaries, induced by a disordered state of the sexual feelings, consequent upon ungratified desires.

X.

LEUCORRHŒAL TYPE.

THIS type is characterized by an inordinate and altered secretion of the mucus furnished by the mucous membrane lining the vagina and uterus. The discharge has been designated by a variety of names, — "leucorrhœa," "vaginal discharge," "fluor albus," "sexual weakness," "weakness," "the whites," &c.

Leucorrhœa is divided into vaginal and uterine. In the former, the discharge comes from the vagina; in the latter, from the womb. When both vagina and womb are implicated, the morbid secretion comes from the lining membrane of both organs. We believe that, ordinarily, the neck of the womb is the part most affected.

Of all the infirmities that afflict woman, none are so common, none so persistent, none so intractable of cure, as "the whites." It is common to all temperaments, all classes, and all conditions. The physician's ingenuity has been taxed to its utmost. "Old women" have been appealed to in vain. Remedy after remedy has been sought out and tested, but to little or no purpose. The discharge remains persistent. All effort towards a cure is a failure. Why is this? why is not a morbid secretion from the mucous membrane of the womb and vagina as amenable to treatment as a morbid secretion from other mucous membranes? why have constitutional remedies and local applications failed in relieving an irritable or congested or inflamed or ulcerated mucous membrane of the womb and vagina, when they are ordinarily so speedily effectual in other parts of the

economy of similar structure? — are questions that follow each other in quick succession.

Leucorrhœa is an *effect*, a symptom supervening upon an irritated, congested, or an inflamed or ulcerated vaginal or uterine mucous membrane, and will readily yield to appropriate remedies, providing that which *caused* this condition of the parts be sought out and removed, and *not before*.

If the infirmity be regarded as a "weakness," as a general or local debility, as it is by too many medical men, and treatment be instituted with reference to those indications, failure will be the inevitable result.

The great secret of the inefficacy of remedial effort lies in the fact that the various forms of what is called leucorrhœa are regarded as substantive diseases, as so many separate and distinct affections, instead of symptoms and effects of a morbid process near or remote; and in the fact that these effects are treated instead of the cause. The "weakness" is treated, and the "discharge" is treated, and the whole catalogue of tonics and local medicaments in the shape of stimulating and astringent washes are brought to bear upon the case, but to very little or no purpose, for the simple reason that the cause is still operating.

Who would think of regarding *expectoration* as an essential malady, and treat it with a view of arresting the discharge? No one: yet the morbid condition of the pulmonary tissues producing the expectoration is precisely similar to the morbid condition of the uterine and vaginal tissues producing the leucorrhœa.

The healthy vagina is constantly lubricated with mucus to prevent cohesion of its sides, which lie in contact. This mucus is thrown out upon the inner surface of its lining membrane from the mucous follicles which exist in great abundance in this tissue, more especially near the vulva. These follicles also exist in great abundance in the lining membrane of the uterus, more particularly in the cervix. The organization and disposal of the mucous membrane

lining the canal of the cervix is such as to afford a very large extent of glandular surface for the purpose of secretion; and it has been estimated that a well-developed virgin cervix uteri must contain at least ten thousand of these mucous follicles.

The secretion from the vaginal follicles is highly acid; that of the cervix, alkaline; and their coming in contact produces the curdled, opaque character of the discharge.

When the cervical cavity is in a healthy condition, the alkaline mucous secretion is thrown out from the follicles in just a sufficient quantity to fill up and block the passage from the vagina to the cavity of the fundus, or body, of the womb. At each menstrual period, this block or plug of mucus is washed away by the catamenial flow. When the flow ceases, the plug is again formed; and, as we have remarked, just enough is secreted to fill the cavity without any flow into the vagina. Thus we see that the secretion from the mucous follicles in the cervix uteri is periodical, and, like the catamenial secretion, is due to the influence of the ovaries. If no ovaries existed, no mucous plug would be formed.

Under excitement, the vaginal secretion from the follicles near the vulva is much increased. During sexual intercourse, a profuse emission takes place in some women. In the absence of excitement, the secretion is inconsiderable.

From the above, it is seen that just enough secretion is thrown out from the follicles in the cavity of the neck of the womb to fill that cavity, or passage, without any flow into the vagina, and that, in the absence of excitement, the secretion from the vaginal follicles is inconsiderable; it being just sufficient to lubricate the parts, and prevent cohesion of the sides of the vagina, which lie in contact.

An inordinate discharge or supersecretion from the follicles of the cervical cavity, causing a constant flow of mucus into the vagina, also an inordinate flow from the vaginal follicles, constitutes what is called leucorrhœa, or "the

whites." The follicles of the cervical cavity are the ones ordinarily affected, and from which the flow of mucus, which constitutes "the whites," usually emanates.

In a healthy condition, the alkaline secretion of the cavity of the neck of the womb is congenial to and offers a suitable medium for the passage of the male sexual element (the spermatozoa) through the cervix uteri into the uterine cavity. But when there is an inordinate secretion, in other words, leucorrhœa, and the flow constant into the vagina, there is no formation of the mucous plug; and the ovule, even if fecundated, becomes washed out of the uterus before an attachment is formed with the living surface of the mother, and sterility is the result.

When the vaginal follicles are the seat of an inordinate flow, the excess of acid destroys the vitality of the spermatozoa in their passage from the vagina to the cavity of the womb; consequently no fecundation takes place, and sterility is the result.

What is the *cause* of inordinate follicular flow, or leucorrhœa? If this be overlooked, the morbid discharge will baffle the skill of all who attempt to correct it. All treatment will prove nugatory, unless the medical adviser has prominently in mind, first, that the menstrual organs exercise, as we have already shown, a governing influence over the rest of the sexual system; second, that these organs are of a spongy, erectile, vascular structure, and subject every twenty-eight days to a periodical congestion (which is in itself *almost* a disease), and consequently, being preeminently disposed to inflammation, very readily pass from a physiological state into a morbid condition; and, third, that, instead of transmitting a physiological stimulus which impels the womb and vagina to a healthy action, the ovaries, when diseased, transmit a morbid stimulus to these dependent organs, which induces in them an exaggeration of their physiological state, and an altered action of the mucous membrane lining the parts, and an exaggerated

discharge or super-secretion takes place, or, in lieu of this, a congested, inflamed, and an altered condition of the texture of these organs supervenes, with all its complicated, multiplied, and distressing sympathetic accompaniments.

We witness more or less of this condition in the first establishment of the catamenia. The congested menstrual organs transmit a morbid stimulus, which induces an internal heat and irritation, with a sense of fulness and weight in the lower abdomen, which becomes relieved only by a free discharge from the little glands in the sub-mucous tissue, — in other words, a leucorrhœal discharge. This leucorrhœal flow not unfrequently occurs for several periods before the true character of the menstrual fluid is established. The morbid stimulus transmitted from the congested and swollen ovaries also vitiates the secretions, causes the bowels to become irregular, the sleep disturbed and unrefreshing, with pain in the back, loins, and head.

Leucorrhœa occurs ordinarily in females broken by disease. Whenever the vital powers become weakened, whenever there is much constitutional weakness, local disorder becomes lighted up in that part of the system which is the least able to resist the influence of morbid stimulus. In females of worn-out constitutions, the local disorder generally becomes located in the sexual organs, and for the reason that these organs are rendered pre-eminently susceptible to the influence of morbid stimulus on account of the periodical turgescence to which they are subject. On account of the process of ovulation, they are more prone to disease than any other organ in the body.

We believe, that, in the great majority of cases of leucorrhœal discharge, the primary cause will be found in a morbid condition of the ovaries. We adopt this belief from the fact that leucorrhœal flow does not occur when the ovaries are absent; and it is seldom or never present before puberty, when the ovaries are immature and hold no controlling influence over the womb and other sexual organs;

and it very generally ceases at the close of menstrual life, when the ovaries have reached the full period of their existence, and, losing their influence over the sexual system, are no longer capable of transmitting either a physiological or pathological stimulus to their dependent organs.

That there are cases, comparatively few in number, however, that have their rise and origin in a congested, inflamed, and ulcerated mucous membrane of the womb and vagina, without any previous diseased condition of the menstrual organs, no one can deny; as, for example, from wounds, contusions, over-distention, long pressure, foreign substances, venereal poisons, excessive sexual intercourse, the various states of catarrh, aphthous disease, adhesive inflammation and cohesion of the nymphæ, and that rebellious sort of inflammation and ulceration induced at the superior angle of the nymphæ and clitoris, and maintained by vicious propensities to excite the parts by friction, &c., which require a treatment directed primarily to the womb and vagina; a treatment scientific, correct, and proper in these cases; a treatment, however, that will scarcely be successful, unless attention be also directed to the menstrual organs, for the reason that the womb and vagina, primarily congested and inflamed, cannot long remain so without lighting up disease in the menstrual organs, either through sympathy or by continuity of tissue, and which will inevitably re-act upon the primary lesion. Herein, we take it, lies the great secret of the difficulty experienced in curing those cases where extensive ulcerations of the womb and vagina go on kindly and rapidly healing, until they become reduced to a superficial size of a shilling-piece, and then break out again to their original extent in the course of a few days, defying all local and constitutional remedies, until the walls of the vagina become contracted to an almost total atresia.

Another and frequent cause of leucorrhœa, and one not unfrequently overlooked, is the gouty and rheumatic dia-

thesis; and, so long as these conditions of system remain, no permanent cure need be anticipated from any local treatment, or by general treatment, if it has not in view the proper depuration of the blood. We have already spoken of these blood poisons, and need not here repeat. A gouty and rheumatic habit is a frequent cause of leucorrhœa; and patients laboring under the infirmity would do well to note the fact.

Constipation of the bowels is another cause of leucorrhœal discharge. It induces congestion in the uterine system by obstructing the returning circulation.

Leucorrhœal discharge sometimes takes place during the period of suckling, but is ordinarily mild. Sometimes, however, the discharge is profuse and debilitating, and necessitates the weaning of the child. This done, the flow speedily diminishes.

Another and not unfrequent cause of leucorrhœa is malposition of the womb, inducing an irritability of its tissues.

Inflammation and ulceration of the cervix uteri, tumors of the vagina and uterus, polypus, worms, impaction of a pessary, &c., are all occasional causes of this flow. From the want of proper ablutions, discharges sometimes occur from the vulva of children and very young girls. The same take place also, sometimes, from teething and intestinal irritation.

By many females, the leucorrhœal discharge is regarded as the cause of their ill-health. By them it is supposed, that, if the discharge could be removed, they would regain their health and strength; little dreaming that it is their ill-health that causes the discharge, and that the leucorrhœal flow is simply an effect or symptom of some local infirmity or general disorder.

Leucorrhœal discharges are sometimes of a purulent and most acrid character; and sexual intercourse has been known to bring on a train of symptoms very much resembling gonorrhœa, and leading to much domestic unhappiness,

from supposition that one party or the other had contracted gonorrhœa from impure connection. Notwithstanding assertions to the contrary by many distinguished physicians, the most accurate diagnosis cannot distinguish between the two diseases.

XI.

TERMINATION OF SUBACUTE OR CHRONIC INFLAMMATION OF THE OVARIES.

SUBACUTE inflammation of the ovaries may terminate in resolution, with a gradual subsidence of all local and general symptoms; or the organs may pass into an indurated, swollen, and irritable condition, which may last for months and years.

With this latter condition of the ovaries, STERILITY is almost invariably the consequence. Should pregnancy, however, occur, ABORTION would be almost inevitable.

The ovaries may become softened, presenting the appearance of pulp; or inflammation of these organs may terminate in the formation of large fibrous tumors, or a large quantity of pus or water; in all of which conditions the power of conception is destroyed, and sterility is the result. "Sterility is a *common* consequence of ovarian changes." — *Dr. Robert Lee.*

STERILITY.

As has been already remarked, the divine Author of the world has so ordained his laws that while all living things, both plants and animals, seem to have a limited existence, yet they are, after all, as permanent as creation itself; that, while we are in our own persons such perishable creatures, we are permanent as a genus or kind, being kept up by a constant succession of new individuals. A man who has given birth to children does not wholly die at death, but a part of him survives in his offspring. Every living

organism has sprung from a pre-existing organism. The doctrine of spontaneous generation, which held, that, in some cases, living beings might originate out of lifeless matter, has long since exploded. Every living thing springs from a parent like itself. Each individual reproduces as he has been produced himself.

The male organs of reproduction consist of the penis and urethra, testicles, seminal vesicles, seminal ducts, prostate and Cowper's glands.

The female organs of reproduction are the vulva, clitoris and nymphæ, vagina, womb, Fallopian tubes, and ovaries.

The special organs set apart for reproduction are the OVARIES and the TESTICLES. The first evolve *eggs*, and the latter elaborate *spermatozoids*, which are the active agents in impregnation, the immediate fathers of us all. After being discharged from the male emitting organ into the vagina, the spermatozoa find their way to the egg, conjugate with it, and thus produce a fertile germ.

The vasa deferentia and vesiculæ seminales, in the male, conduct and retain the seminal fluid containing the spermatozoa. The Fallopian tubes of the female receive the ovum from the ovaries, and conduct it to the womb. The latter retains the egg through pregnancy. The penis and vagina are chiefly connected with sexual intercourse. The former serves to conduct the seminal fluid into the latter and womb. The glans penis, and the clitoris and neighboring parts of the female, are the seat of venereal pleasure.

Sterility, the source of much unhappiness to women, signifies an inaptitude on the part of the female to become impregnated.

Women may, however, remain barren through generative insufficiency in the male, from defect of one or more of the three conditions — erection, intromission, and ejaculation of the spermatic fluid — which are necessary on the part of the male for copulation.

First, There may be deficiency or a defective develop-

ment of the apparatus naturally designed for the transference of the spermatic fluid to the female organs. A congenital deficiency of this organ is, however, very rare. Deficiency from disease or accident, from the bites of animals, from burns, wounds, or surgical operations, is more common. Its removal, however, close to the pubes, may be no bar to the power of procreation, while the ejaculatory muscles retain their natural power to propel the spermatic fluid. A case is on record, "of a young woman who was jealous, and who concealed a razor, with which she removed the penis, while in the sexual act, close to the pubes. The mutilated husband recovered, notwithstanding the hemorrhage, and went to cohabit with another woman, whom he illegally married. His first wife ascertained that his second was pregnant, expressed great sorrow for her act, and persuaded him to return to her. He did so; and then the second wife appeared before a magistrate, to swear or affiliate the infant to him, of which she was pregnant."

Diminutiveness of the organ, where it is otherwise vigorous, is no bar to the power of procreation; nor is extraordinary thickness or length. The respective sexual organs may be so disproportionate as never to be adapted to each other; and the physical inconveniences may be such as to expose the female to great injury and danger to her health; but this is no bar to the power of procreation. *M. Fodere* observes, that "the thickness of the penis, which excites great pain in some women, procures voluptuous sensations in others. The vagina is capable of great dilatation, which may be effected by gentle and gradual efforts, and reduced to a state capable of receiving the virile member. Though extreme length of penis may produce contusion of the os and cervix uteri, it cannot be deemed a just cause of impotence, because, by certain precautions, the danger may be avoided, unless there is great difference between the age of the parties."

There are penes of unusual length, but *thin*, particularly

at their base, which are deficient in energy, and incomplete in erection. Where this abnormal condition of the erectile tissue is present, impotence is usually found to exist. The intromitting organ of the negro is proverbially large, but does not proportionately increase in size on erection taking place, as is the case in whites. "*Size* is no sign of vigor. One of the first characteristics of the perfect athlete of classic times was unusually small though well-shaped genital organs. Indeed, as I have before said, a large flaccid penis is not unfrequently a result and an indication of masturbation having been indulged in to a dangerous extent." — *Acton.*

The orifice of the urethra sometimes opens in the under surface of the organ; but it does not signify unfruitfulness. If, however, the orifice is placed, as it sometimes is, in the perinæum, so that the emissio seminis does not reach the vagina, impotence may be said to be absolute. In a contracted state of the prepuce, where the urine is voided in drops, and the emission impeded, the patient is impotent, usually, until an operation relieves the constricted parts. Disease of the seminal ducts, and stricture of the urethra, impeding emission, are frequent causes of this infirmity; so, also, priapism, where the erection is so vigorous as to close the urethra. A case was reported in "The Gazette Med." 1785, "A man aged thirty-six years, of good constitution, was married to a healthful woman aged twenty-six. Both were in good health, and extremely desirous of having children: but the husband could not ejaculate on account of the vigor of erection and rigidity of the penis; and he was forced to retire before the consummation of the act. This circumstance was the more remarkable, as he had experienced no difficulty with other women, and had children by his first wife."

Second, The testes may be wanting, or so defective in structure that no spermatic fluid is furnished; or there may be a deficiency of its elemental constituent. The

testes are the essential organs in the secretion of semen; and their absence renders the male unfruitful, and beyond the help of medical or surgical interference. Absence of the testes in the scrotum does not imply unfruitfulness. They may be retained in the abdomen, and yet no impotence result. In the elephant and some other animals, and in birds and reptiles, the testicles are constantly found in the abdomen side by side with the kidneys, and in other parts of the body. In cases, however, where the testes do not descend into the scrotum, they remain ordinarily undeveloped, imperfect in structure, and soft, evolving semen containing no traces of spermatozoa.

Deficiency of the testicles is accompanied with well-marked constitutional phenomena not easily mistaken. The characteristics of the male are obliterated, and those of the female simulated. The general signs of virility are absent; masculine activity and vigor, a well-developed muscular system, a strong, deep-toned voice, the beard, and the hair on the breasts and pubes, are wanting. The hair is usually of light color; the muscles are flabby and soft; skin fine and delicate; eyes dull and heavy, with a pale, sorrowful cast of countenance; voice sharp and squeaking, or falsetto in quality, and stature small. The thigh-bones are less arched than in man, and the haunch-bones more spreading, like those of the female, and form a pelvis of uncommon capacity. The cellular tissue is more abundant, more loose, and more replete with fat. Males thus circumstanced are ordinarily of dull intellect, cruel, stingy, jealous, pusillanimous, artful, depraved, and great cowards. "Cowardly and deceitful, because they are feeble; envious and wicked, because they are wretched."

Congenital deficiency, or extirpation of the testes, although it deprives the individual of the power of procreation, is not attended by total extinction of venereal desire. Extirpation does not prevent erection or venereal orgasm from taking place; but the emission consists of the prostate

fluid, the mucus of the seminal vesicles and urethra, and is unprolific. Eunuchs retain the power of copulation in an imperfect manner; and this is so well known, we are told, that, in the East, the eunuchs who have charge of the seraglios are deprived of all external generative organs. Local injury, atrophy, scirrhus, cancer, and scrofula, affecting both testes, render the subject impotent; and, as we have already seen, a state of complete inaction, as in those who have maintained a strict monastic life, is often attended by a similar result, — the internal spermatic organs shrink, and become inert.

Third, Extreme obesity may also prove a source of impotence. We are told that Martin, king of Aragon, furnishes a striking example of this. "He is stated, by historians, to have been so corpulent, that neither mechanical contrivances nor medical treatment could render him any assistance towards the accomplishment of venereal congress." Large scrotal hernia and tumors are attended, sometimes, with a similar result.

Fourth, One of the more common causes of impotence is a weakness of the generative organs, induced by too early or excessive sexual intercourse, or from indulgence in the pernicious crime of self-abuse. "Impotence is often caused by debility of the genital organs, induced by precocious venereal enjoyments; or by the abuse of the sexual functions by solitary indulgence or masturbation. In these cases, there is often want of erection, and, should a seminal emission take place, the semen does not possess its prolific power." — *Ryan.*

Excessive sexual intercourse is also a frequent cause of want of erection and impotence. Desire remains; but the erector muscles of the organ do not respond, notwithstanding the mind may be highly excited by lascivious ideas. Burning passions consume; but the emblem of manhood lies motionless, lifeless. The cup of life which glittered with gems and gold, and hitherto filled to overflowing with

a concentration of all known or imagined pleasures, has become sacked, and drained to the dregs. The cup is empty; and *impotence* is the spirit which destiny has let loose against the transgressor to torment him.

The act may be imperfectly performed, and, from excessive indulgence, the semen may escape without the aid of the ejaculatory muscles; or it may be imperfect in quality, thin, watery, and devoid of prolific power.

Fifth, General debility — from intemperance, inordinate and debilitating discharges, long-continued debauchery, masturbation, long watching, great fatigue, mental or corporeal, want of nutriment, or from whatever cause induced — is another common cause of ,the infirmity.

An overtaxed brain annihilates sexual feelings. The student is impotent during any long-continued and fatiguing mental exertion. When the brain is overtaxed, the testes do not secrete, consequently erections are not likely to occur, or, if they occur, they may be imperfect. The same occurs when any great muscular exertion takes place. If, however, the reproductive organs be healthy, and have not been abused, sexual feelings and powers will return as soon as the brain or the muscles are allowed to regain their normal condition. *Peyrilhe* reports a case, "A mathematician, profoundly occupied with some problems which he could not solve, was so affected when he caressed his spouse he could not ejaculate. His wife consulted the narrator of this case, who advised her to cause an amorous, joyous excitement in her husband, and to seize this moment to receive his caresses. She rigorously followed the advice, and her husband regained his powers."

Men who gain their bread by the sweat of their brows, or those who during certain periods are oppressed mentally from cares and perplexities of life, are temporarily impotent; but a lapse of time, or a change in their pecuniary matters, will bring back sexual thoughts, and the lethargy of feeling will be followed sooner or later by ardent feelings and re-instated sexual powers.

Excessive smoking, inordinate use of alcoholic liquors, the pleasures of the table, &c., bring about, not unfrequently, a lethargy of feeling which will continue so long as these excesses are indulged in.

Masturbation is another cause of deficiency in manly vigor. It produces not unfrequently an indifference towards the opposite sex, which condition, if the habit be not abandoned, will continue through life. "The impotence," says *Pinel*, "caused by masturbation reduces youth to the nullity of old age, and is too often incurable." And *Acton* tells us, that "a youth who masturbates himself, and continues the practice as he grows up to manhood, generally evinces, even after he has arrived at the marriageable age, no disposition towards the other sex. Only his own solitary pleasures can give him any gratification: as far as women are concerned, he is virtually impotent." Touching a masturbator's state of feeling towards the opposite sex, *Lallemand* says, "Their solitary vice has a tendency to separate those practising it from women. At first, of course, it is on the sex that their thoughts dwell; and they embellish an ideal being with all the charms of imaginary perfection. The habit, however, which enslaves them little by little, changes and depraves the nature of their ideas, and at last leaves nothing but indifference for the very reality of which the image has been so constantly evoked to aid their criminal indulgence. At a later period, when erection is only temporary, and is too incomplete for them to think of sexual intercourse, they abandon themselves with fury to their fatal habit, notwithstanding the almost complete flaccidity in which the erectile tissues are left. At this period, the handsomest woman only inspires these patients with repugnance and disgust; and they ultimately acquire an instinctive aversion, a real hatred, for the sex. They dare not always let their feelings on this subject escape them, from fear of their shameful vice being suspected, or the humiliating condition to which they are reduced being discov-

ered; but they lose no opportunity of, as it were, revenging themselves for the repugnance which they believe they produce in women, and which, in truth, they do inspire, in consequence of the instinctive reciprocity of such feelings that is inevitable. . . . In losing before the usual age the generative functions, man loses the consciousness of his dignity, of his essential character; because he feels himself fallen in importance in relation to his species. In consequence, the loss of virile power produces an effect more overpowering than that of honors, fortune, friends, or relatives: even the loss of liberty is as nothing compared to this internal and continual torture. Those who suffer from injustice or misfortune can accuse their enemies, society, chance, &c., and invent or retain the consciousness of not having deserved their lot; they have, moreover, the consolation of being able to complain, and the certainty of sympathy; but the impotent man can make a confidant of no one, he can expect sympathy from no one. His misery is of a sort which cannot even inspire pity; and his greatest anxiety is to allow no one to penetrate his dismal secret."

Sixth, Impotence, for the time being, may occur from *moral* causes in those of robust health and perfect genital organs, — causes which are capable of suspending the action of those organs; such as strong mental emotions, or too ardent desire, or fear of being incapable, timidity, shame, surprise, jealousy, hatred, disgust, &c.

"There are no facts which so evidently prove the influence of the moral over the physical state of man as the phenomena of erection. A lascivious idea will arise in the midst of our gravest meditations; the virile organ will answer to its appeal, and will become erected, and fit for the function which Nature has confided to it: but another thought arising will instantaneously extinguish with the most frigid indifference all amorous transport. This statement is well exemplified by the effects of the passions. Chagrin, inquietude, and debilitating passions influence the

whole economy; jealousy and profound meditation impede the faculty of procreation. Thus, at the very moment when enjoyment is about to be commenced, too eager desire, the excess of love, the fear of not being loved, timidity, respect, doubt of capability, the fear of being surprised, the shame of excessive modesty on being in the presence of witnesses, antipathy, the ecstasy on beholding the attractions of a beloved or fine woman, the continence imposed by real and true love, the sudden knowledge of some physical defect in the female, aversion from filth, odor, and pre-occupation of the mind, are sufficient to oppose erection, and to abate it most suddenly. But who can enumerate all the moral causes capable of impeding or abating erection? A sigh doubtfully interpreted, a recollection, an equivocal word, are sufficient to destroy the illusion, and congeal the most violent passion. A newly-married man has become suddenly impotent on discovering his wife to be without a hymen, though the absence of this membrane is no proof of unchastity; and a debauchee has as suddenly become impotent on finding the membrane perfect." — *Dict. de Sc. Medicales.*

Hatred and disgust of the husband towards his wife, want of sympathy and want of feeling, apathy, indifference and frigidity, may be the cause of impotence, though he is capable of cohabiting with other women. This is seen in profligate men, who may be impotent with one woman, while new and more attractive objects arouse their corporeal energies, and assist the completion of the sexual function. All these causes, however, are operative only for the time being, and very soon disappear.

Seventh, Impotence may depend on defects of the body, as disease of and falls and blows on the spine, paralysis, paralysis of the penis, &c. Disease of the spinal cord and brain, irritation in the bladder and neighboring parts, sometimes cause priapism or permanent erection. Continual erection, immoderate desire, and erotic delirium, sometimes

called satyriasis, is closely connected with disease of the brain, and is one of the most awful visitations to which humanity can be subject.

Male sexual vigor continues ordinarily until about the sixty-fifth year. "The genital organs," says *M. Virey*, "offer two states during life, in the young and old, which are the frozen zones of existence: the intermediate state is the torrid zone of life. The infant has nothing to give, the old has lost all." "This doctrine, however, must not be received," remarks *T. E. Beatty* of the Dublin Royal College of Surgeons, "without limitation; for instances of precocity as well as of protracted generating power are not wanting. Dr. *Ryan* cites some examples of children precociously developed, even before the fourth year; and he alludes to a case of a boy described by *M. Virey*, who, at seven years of age, was as fully developed as an adult, and who made furious attacks on his female acquaintances, and absolutely deprived one of them of that which she could never regain." The celebrated Thomas Parr is a striking example of vigorous senectitude. We are told that he married at the age of one hundred and twenty, and was compelled to do penance for an amour in his hundred and fortieth year. De Longville, a Frenchman, married ten wives, the last when he was in his ninety-ninth year; and she bore him a son when he was in his hundred and second.

It will be remembered that the ovaries, or egg-vessels, are two small bodies, in size and shape like an almond, situated deep within the pelvis on either side of the womb, with which they are connected by membranous folds, called *uterine ligaments*, of about an inch and a half in length.

When divided longitudinally, the substance of the ovaries is found to contain small globular bodies, or vesicles, called *Graafian vesicles* or follicles, ovi-capsules, ovi-sacs, &c. *Roederer* found in the ovary of one woman thirty, and in another, fifty, of these vesicles or sacs; but the number

contained in each ovary is, as we have already seen, very far beyond this. At puberty, the ovaries are found crowded with vesicles, but so minute, that they are only distinguishable by the aid of high magnifying power, excepting those that are approaching maturity.

These vesicles, or sacs, contain the ovule, or egg, which consists of yolk, and a little cell called the *germinal vesicle*, amid the yolk. The egg of some animals, as, for instance, the fowl, is very large; but the egg of the woman, when matured, and ready for being evolved, is invisible to the naked eye, and does not measure, we are told, more than from the fifteenth to the twentieth part of a line in diameter. According to *Bischoff*, they vary from one two hundred and fortieth to one one hundred and twentieth of an inch.

As the Graafian vesicles with their contained egg become matured, they are forced forward from the centre of the substance of the ovary to its surface, and slightly beyond it; the vesicle projecting like a nipple. As the projecting vesicle matures, its sides become thinned, until at last it bursts; the egg becomes discharged, and is received into the fimbriated extremity of the *Fallopian tube*, through which it passes into the womb.

The two *Fallopian tubes*, or oviducts, open into the womb at its upper angles on each side. The other end of these ducts has an expanded, or bell-shaped and fimbriated mouth, which floats above, and slightly in front of, the ovary, but erects, and adapts itself to the surface of the ovary at each menstrual period, for the purpose of receiving the egg about to be discharged. On quitting the ovary before fecundation, the egg consists only of yolk and its germinal vesicle. In its passage down the oviduct, it receives a coating of albumen. In the fowl, it receives a covering of albumen, or white, and a shell.

It has already been remarked that *M. Raceborski* maintains "as the result of his researches, *first*, that there exists

the most intimate connection between the Graafian vesicles and menstruation. When the vesicles arrive at their full development, menstruation commences; and, when they are destroyed, it ceases. *Secondly*, at each menstrual period, a follicle projects, like a nipple, on the surface of the ovary, where it afterwards bursts, without requiring for that purpose any venereal excitement. *Thirdly*, the rupture of the follicles generally appears to take place at the period when the menstrual discharge is stopping; and, *fourthly*, the ovaries do not act alternately, as has been affirmed; in this respect, not seeming to be under any fixed law. In a more recent work, he asserts the doctrine that the catamenia are but a secondary phenomenon in menstruation so called; that the capital phenomenon is the maturation and periodical discharge of ova; and hence a woman may give birth to several children, without ever having seen the catamenia." — *Dunglison.*

Reproduction in the human species is the joint product of the male and female. The female furnishes the ovule, or egg; the male, the fluid necessary to vitalize it. The ovary secretes the ovule; and the testes, the life-imparting fluid, the medium by which life is communicated from generation to generation.

Ordinarily, but one ovule is evolved and fecundated, occasionally two, three, and four; and twins, triplets, and quadruplets are brought forth.

The quantity of spermatic fluid ejaculated has been estimated to average about two drachms, but varies according to the individual, to his extent of voluptuous excitement, and to the degree of previous indulgences in venereal pleasures.

Intercourse is requisite, that the vitalizing fluid of the male may be conveyed within the appropriate organs of the female, in order that, from the contact of the male fluid with the ovule, a new being may result.

To this sexual union, the gratification of which, "for wise purposes, is attended with the most pleasurable feelings that

man or animals can experience" (*Dunglison*), both male and female are prompted by an imperious instinct implanted within them by the divine Framer for the preservation of the species. With the female, these promptings have no existence previous to puberty. They commence with the full development of the ovaries, and persist vehemently during youth and adult age, but disappear to a greater or less extent after "change of life," when the menstrual organs become shrunken, and no longer capable of producing germs.

From what has been observed in the foregoing pages, the reader is prepared to expect that *disease of the menstrual organs* is an important and prominent cause of sterility: such is the fact. *Tilt* observes, that the conclusions at which *Neumann*, Madame *Boirin*, and others have arrived, as the result of great experience, is, that sterility generally depends upon a morbid state of the ovary, slowly and insidiously developed, and giving origin to other ovarian diseases; and *Hufeland*, the patriarch of German medicine, affirms, that half the life-time of those subject to dysmenorrhœa is devoted to suffering, while the remainder is blighted by sterility. *Churchill* says, "If the disease (inflammation of the ovaries) involve the substance of both ovaries, the power of conception (at least *pro tempore*) will be destroyed, and sterility will be the result." *Ashwell* says, "Dull and heavy pains in the region of the ovary, lasting for months, are the consequence of chronic inflammation of the ovaries. I mention this circumstance because they are too often regarded as neuralgic, and treated accordingly; painful menstruation and *sterility* being their result."

We have seen how exceedingly prone the menstrual organs are to disease, not only from their peculiar structure, but from the periodical congestion to which they are subject every twenty-eight days; and, when diseased, it is readily to be perceived how almost impossible it is for them to mature and evolve *healthy* ovules, and how much

more likely that the ovule, instead of becoming properly and fully developed in the Graafian cell, would become shrunken and blighted. This is one cause of sterility.

Not only may and does the Graafian cell and germ become blighted, but the entire ovary may become shrunken, atrophied, and disorganized: it may become the seat of fibrous tumors, or become dissolved into a large quantity of pus. When this occurs to both ovaries, sterility is inevitable, and beyond the reach of remedies.

We have seen that a period of about twenty-eight days is required for the full development of the ovule. Many nervous and delicate females experience a return of the menstrual flow every two or three weeks. Whenever this occurs, the ovule is prematurely extricated from the ovary, and perishes because of its want of proper growth and development. This is another cause of sterility.

The external or peritoneal coat of the ovary, is, as we have seen, a frequent seat of inflammatory action; and adhesions form with adjacent tissues. These adhesions are sometimes of such a nature as to draw the ovary beyond the reach of the fimbriated extremity of the oviducts, or Fallopian tubes, and the communication between the two organs is interrupted. When this occurs, the ovule falls into the peritoneal sac, and perishes, — another cause of sterility.

The diseased condition of the external coat of the ovary may extend to the fimbriated extremity of the oviducts, and both oviduct and ovary become so glued and matted together as to obliterate the passage, and render the duct incapable of transmitting the ovule to the uterus; or, from extension of the inflammatory action to the oviducts, their lining membrane may throw out a thick, tenacious mucus, filling up and choking the passage, — other causes of sterility.

Dr. *Caswell* says, "The adhesions which form between the uterus, Fallopian tubes, and ovaries, and the surrounding parts, are much more productive of serious effects than

in any other organ of the body; and, in order to give additional importance to the study of them, I may observe that they are not unfrequent, and are certainly one of the most obvious, causes of sterility. They produce, according to their situation and mode of attachment, either antiversion or retroversion of the uterus; they fix the Fallopian tubes in situations in which the fimbriated extremities cannot reach the ovaries, or they envelop the fimbriated extremities in such a manner as to render them quite impervious (which is always the cause of dropsy of these tubes), or, lastly, they cover the ovaries so completely, that impregnation is rendered impossible." (?)

In the foregoing pages, we have seen that the organs of menstruation, being subject to a periodical turgescence through ovulation, and constantly vibrating between a quiescent and a highly excited state (alternately pale and flaccid, and red and swollen), are exceedingly liable, from this unequable rate of the vital functions, to take on diseased action, and, by the transmission of morbid stimulus to the subsidiary organs, to induce an irritated, congested, or inflammatory state of the womb and vagina, leucorrhœal discharges, &c. This irritated, congested, or inflammatory condition of the lining membrane of the womb is another source, and, as we believe, one of the most fertile sources, of sterility; for, so long as diseased action is going on in this lining membrane, it is in no condition to *afford an attachment between itself and the extricated ovule.* The ovule may become fully developed, eliminated, and sent forward through the oviduct into the womb, and there fecundated; but, if the uterine membrane is in a state of inflammation, no mesenteric attachment will be formed between it and the lining surface of the womb, by which it may obtain the nutritive fluids which are required for its growth and development: and pregnancy will not take place. Myriads of germs are evolved and become vitalized, but pass out of the womb, and become lost, because the congested and inflamed

surface of the womb is in no condition to affix to itself the ovule; and, until this attachment does occur with the living surface of the mother, pregnancy does not exist.

We have seen that an exaggeration of the physiological state of the uterus, induced by disease of the menstrual organs, produces *leucorrhœal discharges*. This is an exceedingly common cause of sterility. *M. Donné* has shown that these discharges, whether eliminated by the internal surface of the uterus, or the vagina, under certain diseased conditions, *destroy the life* of the *spermatozoa* before they can come in contact with the extricated ovule.

Spermatozoa, or spermatic animalcules, are minute bodies contained in the spermatic fluid of the male, furnished by the testes. The other components of the spermatic fluid, which constitute the medium in which the spermatozoa live, are derived, for the most part, according to the experiments of *Gosselin*, from the vesiculæ seminales. To these animalcules are due the vitalizing influence of the fluid; and fecundation consists in the direct communication or *contact* of one of these spermatozoids with the ovule.

If the testes have never been compromised by disease, and the male be in full health, the spermatozoa exist in great numbers. If, however, the testes have not descended from the abdomen into the scrotum, or if they have been seriously diseased, as from gonorrhœa or syphilis, or from the transference of the inflammation in mumps, but very few or no spermatozoids exist; and although the patient may still retain sexual desires, and is capable of sexual intercourse, yet the power of fecundation is lost. He is impotent from the absence of spermatozoa in the seminal fluid. So, also, if from excesses or any other cause the system becomes weakened, exhausted, and enervated, the spermatic fluid is ordinarily wanting in its elemental constituent.

Much difference of opinion exists as regards the true nature of spermatozoids. Some suppose them to be mere

tubes containing the true sperm, while others consider them minute animated beings. *Valentin* profeeses to have detected their internal organization, and, consequently, their true animal nature; and *M. Pouchet* declares, that "every mode of investigation presented to the human mind appears to speak in favor of the animality of the spermatozoids. Inward feeling, observation, experiment, and reflection unite in expressing that they can be nothing else than animals." By others, they are regarded as "reproductive particles, but not animalcules."

Spermatozoa are discharged from their parent cells by the bursting of the latter, and are conveyed by the duct leading from the testicle into the urethral canal, whence they are poured into the female organs in the act of copulation. In warm-blooded animals, birds and mammals, they live, or retain their fertilizing power, but for a short time after their discharge. In cold-blooded, vertebrate animals, fishes, and reptiles, and in the invertebrata, they can live much longer, and remain active for days, and even for months, in the female organs, fertilizing several crops of eggs in succession. Pure water soon puts an end to their motions; but in a denser fluid, such as mucus and urine, they can live for some time.

The precise spot in the generative intestine where the contact between the spermatozoa and the ovule occurs is also a matter of much discussion among physiologists. By some, it is maintained that the contact takes place in the uterus; while others maintain that the spermatozoa traverse the womb, and the whole length of the Fallopian tubes, and effect the union on the surface of the ovary; and others, that the contact occurs in the Fallopian tubes. Nothing has, however, been positively demonstrated on the subject. The general belief appears to be that the contact occurs ordinarily in the uterus, but that it may and does sometimes take place in the Fallopian tubes, and at the ovaries. When it takes place at the ovary, and an attachment is

formed at that point, *ovarian* pregnancy occurs. If the contact occurs at this point, and the ovule afterwards escapes the fimbria, and falls into the peritoneal sac, and forms an attachment, *ventral* pregnancy takes place; or the contact may take place in the oviduct, and, an attachment forming there, we have what is called *interstitial* pregnancy. Wherever and whenever the contact does occur, the germ becomes fecundated, and then, if an attachment is formed with the living surface of the mother, pregnancy exists.

It is a matter of much discussion, also, as to how the sperm reaches the uterus, Fallopian tubes, or the ovaries, after being deposited in the vagina. By some it is supposed that a successful fecundation depends upon the spermatic fluid being thrown full into the mouth of the womb. That this, however, is not necessary is evident from the fact, that some male organs are incapable of reaching the mouth of the womb from deficiency in length, and, also, from the fact that impregnation has taken place, where, from partial occlusion, no entrance into the vagina could be effected. If the secretions of the vagina with which the spermatozoa are brought in contact are in a healthy condition, they are capable of not only living for several days, but moving about with much rapidity, and readily find their way to the cavity of the womb, no matter where in the vagina they are deposited. We have already described, in the first footnote under the head of MENSTRUATION, a peculiar movement which Dr. *James Blundell* observed in the vagina of the rabbit, and which he thought served to explain the mode of introduction of the seminal fluid into the uterus. "Prof. *Wagner* considers that the sperm reaches the ovary, partly by ciliary motion, which begins in the cervix uteri, partly by contraction of the tubes, and partly by the motility of the spermatozoids; whilst Dr. *Carpenter* thinks it not unreasonable to suppose that the last is the sole power; and that the transit of the spermatozoids from

the vagina to the ovaries is effected by the same kind of action as that which causes them to traverse the field of the microscope." — *Dunglison.*

The next question that arises is, In what manner does the sperm exert its fecundating agency on the ova? Physiologists very generally concur with the views of *Lischoff*, who maintains, that "spermatozoids and ova are constituents of an organism, and that a positive contact of the two is necessary for the formation of a new being." "Dr. *Barry* has seen spermatozoids within the ova of rabbits; and their entrance into the ova of animals has been confirmed by many observers." — *Dunglison.*

Of the nature of the process by which the new individual results from the contact of the spermatozoid with the ovule we are profoundly ignorant. "The new being must be stamped instantaneously, as by a die. From the very moment of the admixture of the materials at a fecundating copulation, the embryo must have within it the powers necessary for its own formation, impulses communicated by each parent as regards likeness, hereditary predisposition, &c. From that moment, the father has no communication with it, yet we know that it may resemble him in its features, and predisposition to certain morbid states; whilst the mother, probably, exerts but a slight and indirect control over it afterwards, her office being chiefly to furnish the homunculus with a nidus in which it may work its own formation, and with the necessary pabulum."

A child may resemble either parent, or both; and it may resemble neither the one nor the other, but may possess the features and general appearance of the mother's former gallant or husband. Ordinarily, however, a child bears the impress of both parents. It may possess the likeness of one, and the physical constitution of the other; or both may be blended.

A child partakes, ordinarily, of the mental and physical qualities of both parents: which the child will have

the most of seems to depend somewhat upon the relative vigor and strength of constitution and age of its procreators.

If both parents are young, immature, and weakly, their children are ordinarily weak, puny, and scrofulous. On the contrary, if both are strong and healthy, their children will evince strength, vigor, and a harmonious proportion of limbs and body.

"Precocious marriages," says *Aristotle*, "oppose a good generation; for in the entire animal kingdom the fruits of the first signal of reproductive instinct are constantly imperfect, and have not any well established form. It is also the same with the human species; and the proof is evident, for precocious marriages procure small and contemptible men."

"*M. de Fontaine*, chief surgeon to the late King of Poland, attributed to the premature unions of the Polish Jews the extreme physical debility which characterizes them and their progeny. *Motesquieu* affirmed, that the fear of military service caused a great number of young men, almost of the age of puberty, to enter into matrimonial connections; that these unions, it is true, were fertile, but that the diseases and misery which they produced greatly diminished the population of France. . . . Louis XI. cohabited before the age of fourteen with his queen, who was not twelve; and, in the opinion of *M. Marc*, his effeminate and ferocious character depended in some degree on the exhaustion of his nascent powers. . . . The ancient legislators and philosophers opposed early marriages. The laws of Lycurgus enacted that men should not marry before the age of thirty-seven, and women not before the age of seventeen years. Xenophon and Plutarch explain the spirit of those laws on the grounds that they were intended to secure the most vigorous offspring and powerful population. . . . Persons of strong and sound constitutions beget healthful infants; while those who make use of excessive mental or corporeal exertions have

generally feeble offspring. It is for this reason that simple, stupid villagers generally beget infants of high physical and moral powers; while men of the greatest genius, who overexert their mental faculties, often engender only idiots or pusillanimous infants. . . . If the whole mind is not absorbed in the act of generation, the products will be feeble and delicate, as we usually observe in the infants of men who make great mental or corporeal exertions. The sons of celebrated men are generally inferior to their fathers. We seldom, if ever, see great men engender great men. The sons of Socrates, Hippocrates, Crysippus, Pericles, Thucydides, and Cicero, among the ancients; of Racine, La Fontaine, Henry IV. of France, Napoleon, John Hunter, Cullen, and a host of others that might be cited among the moderns, did not equal their fathers in talent.

"Most of the men, on the contrary, who became illustrious by character, genius, or valor, were the fruit of ardent and vigorous or illicit love, and the sons of parents who were only remarkable for physical strength. Many celebrated men were illegitimate, and were the sons of early and ardent love, — 'fortes creantur fortibus,' — though there are exceptions when the strong are enfeebled or aged. . . . It has been long observed, that men of genius were the first-born, because the first love is in general the most ardent: and hence Asiatics have always maintained that their greatest legislators were born of virgins, as Zoroaster, Confucius, Mahomet, Vistnou Zacca, &c.; and we shall also presently observe that others were engendered not in married state, but by the force of love alone. Such were a great number of the heroes of antiquity, who, for this reason, were said to be descended from the gods, as Hercules, Esculapius, Romulus, &c.; such, also, were other illustrious bastards, as Homer, Galileo, Cardan, Erasmus, &c. Even the poets entertained this opinion; and Shakspeare thus alludes to it when he makes Edmund say, —

'Why brand they us
With base? with baseness? bastardy? base, base?
Who, in the lusty stealth of Nature, take
More composition and fierce quality
Than doth, within a dull, stale, tired bed,
Go to the creating a whole tribe of fops,
Got 'tween asleep and wake?'

"William the Conqueror was named 'The Bastard,' as he was the offspring of a left-handed marriage (*pour un séjour*), which allowed nobles to marry an inferior for a certain time, but to wed an equal for life.

"Prolonged continence produces analogous results to the preceding. The father of Montaigne, returned after thirty-two years from the wars of Italy, was during that period strictly continent, and begot his celebrated son. The father of J. J. Rousseau returned from Constantinople after a considerable absence, and brought to his spouse the reward of a long fidelity. . . . By a protracted continence, or a purity of morals, the species are improved and strengthened in mind and body. Virtuous parents concentrate all the energy of their minds in abandoning themselves to the views of Nature. They engender a posterity, by whose talents the pride and glory of their progenitors will be maintained. Thus it is, that, after many progressive and virtuous generations, we see families ennoble themselves and flourish; but, by a subsequent incontinence, they fade and degenerate. The nobility of France, Spain, Portugal, and other nations, who intermarry among themselves, so as to maintain their caste, have long been remarkable for the degeneracy of their offspring, which often leads to adulterine bastardy. The Jews, who intermarry among themselves, are also remarkably degenerate." — *Ryan.*

"Children resemble," says Dr. *Pritchard* ("Researches into the Physical History of Mankind"), "in feature and constitution, both parents; but I think more generally the father. In the breeding of horses and oxen, great impor-

tance is attached by experienced propagators to the male. In sheep, it is commonly observed that black rams beget black lambs. In the human species, also, the complexion chiefly follows that of the father; and I believe it to be a general fact, that the offspring of a *black father* and a white mother is *much darker* than the progeny of a *white father* and a dark mother."

"The surest means," says Dr. *Ryan*, "by which sound and vigorous infants may be engendered is a good constitution unenfeebled by excessive intellectual or corporeal exertion, or any chronic disease. It is universally admitted, that the moral and physical disposition are transmitted by generation; and hence we may conclude, that healthful and vigorous parents can alone produce healthful and vigorous infants. It is also generally concluded, that diseased or delicate parents procreate diseased and delicate offspring. The same results are observed in plants and animals. Every one knows the truth of these statements. How often do we observe a fine, a beautiful woman, of excellent constitution, united to a small, diminutive, aged, broken-down, or deformed companion, or the reverse! and can it be supposed that the physical powers, the sympathies, of such individuals, are favorable to the proper performance of the function of generation? Love cannot be reciprocal in such cases; and animal or organic impulse will prefer that which is more accordant with itself. Even brutes prefer males which are possessed of vigor, power, and beauty; and this instinct is implanted by Nature in all animals."

In a spermatozoid and an ovule, there is comprised the elements of a new being; and their coming in contact results in its formation. Each contains the rudiments of the future man. Each determines the contour, the tone of the voice, the form of the head, the shape of the nose, the length of the fingers, the color of the skin, the hair, the eyes, &c. Each determines, to a greater or less extent, the future growth, development, physical vigor, and diseases;

determines whether liable hereafter to rickets, syphilis, scrofula, insanity, consumption, disease of the heart, hemorrhoids, cataract, amaurosis, hernia, rheumatism, or gout; and each determines the mental and moral endowments, the powers of observation, memory, judgment, imagination, talent, skill, genius, disposition, honesty, sobriety, benevolence, or cupidity; the emotions, passions, desires, appetites, selfishness, or knavery. Like produces like, mentally and morally, as well as physically, modified only by subordinate circumstances. As are the parents, so will be the children "The feeble, the sickly, the exhausted with age, and the incompletely developed through extreme youth, marry, and, without the least compunction regarding the organization which they shall transmit to their offspring, send into the world miserable beings, the very rudiments of whose existence are tainted with disease. If we trace such conduct to its source, we shall find it to originate either in animal propensity, intellectual ignorance, or, more frequently, in both. The inspiring motives are generally mere sexual appetite, avarice, or ambition, operating in the absence of all just conceptions of the impending evils. *The punishment of this offence is debility and pain transmitted to the children, and reflected back in anxiety and sorrow on the parents.*" — *Combe, Constitution of Man.*

That it has pleased God to punish the parents through their children, that he suffers them to fall into the same errors and the same wickedness, and to transmit the same to their children and to their children's children, is as true as holy writ can make it. We have been taught this from time immemorial. We are taught this from the Bible, and from ancient and modern writers. "I the Lord thy God am a jealous God, visiting the iniquities of the fathers upon the children unto the *third and fourth generations*" (Ex. xx. 5). The ancient poets tell us that Leda, the wife of Tyndarus, broke faith with her husband, and had an affair of gallantry with Jupiter. Both her daughters fell into

the same sin, and violated their conjugal faith to their husbands, — Helena to Menelaus, and Clytemnestra to Agamemnon. An evil tree brings forth evil fruits. "A crow's egg is no better than the crow herself."

How great, then, the responsibility of those who bring immortal beings into the world, and launch them forth upon the trackless ocean of life without pilot or compass; having bequeathed to them their own constitutions, their physical, mental, and moral endowments, their diseases, their virtues or defects, honesty or knavery, their sobriety or intemperance! How great the importance of early moral and mental training, early teachings, discipline, warnings, and subduings, lest "as the twig is bent the tree inclines"! How truly is the destiny of the new being placed in the hands of the MOTHER! What a task has she before her, to so mould the character, yet undecided, that the mischief of its inheritance may be repaired ere its growth and development may determine the drunkard, the idler, the liar, or the thief! How much cause have some to bless the memory of their parents, while others cannot without anguish think of the tenure upon which they hold a life they did not covet! The parents reap not alone the harvest of their habits of indolence, gluttony, intemperance, and follies. Their offspring are the inheritors of the soul-and-body-destroying legacy, which will be transmitted, losing none of its characteristics, through several successive generations, becoming more prominently marked at each succeeding remove. "There are too many instances where the debility has been inherited from the parents, and the individual is a sufferer from the vices or the follies of a generation which has passed away." — *Alfred Smee, London.*

What a weight of human misery may the delinquencies of a single individual entail upon an unoffending progeny! Nor is this all: the delinquencies of a single individual may bring ruin upon nations. The ancients understood these things. Their poets tell us, that Jupiter's intrigue with

Europa was the occasion of sanguinary wars between the Cretans and Phœnicians. King Paris's amour with Helena was the cause of fitting out thousands of war-vessels, and a ten-years' war against Troy, in which thousands of Grecians and Trojans were slain, and the city reduced to ashes. Examples of a more recent date could also be cited, where intrigue has been the cause of long and bloody wars.

How important that parents should live in uprightness, and follow the decrees of wisdom! and how important that they should exercise the most unrelenting discipline, and search with anxious care for a correct and judicious treatment of their bodily infirmities, that the mischief may be repaired ere it be entailed on their children!

"There is no moral difficulty," says *Combe*, "in admitting the wisdom and benevolence of the institution by which good qualities are transmitted from parents to children; but it is frequently held as unjust to the latter, that they should inherit parental deficiencies, and so be made to suffer for sins which they did not commit. In treating of this difficulty, I must again refer to the supremacy of the moral sentiments as the theory of the constitution of the world. The animal propensities are all selfish, and regard only the immediate and apparent interest of the individual; while the higher sentiments delight in that which communicates the greatest quantity of enjoyments. Now, let us suppose the law of hereditary descent to be abrogated altogether; that is to say, that each individual of the race was at birth endowed with fixed natural qualities, without the slightest reference to what parents had been or done: this form of constitution would obviously cut off every possibility of improvement *in the race.*"

To return to the causes of sterility, we will remark, that it has been demonstrated by *M. Donné*, that spermatozoa are capable of living for several days after emission from the male, providing the secretions of the womb and vagina with which they are brought in contact are in a healthy

condition; *but if these secretions be unhealthy, as in some forms of leucorrhœa, they perish at once.* *M. Donné* observes, "As might be expected, the zoösperms (spermatozoa) live perfectly well in mucus secreted by the vagina in its normal state. But the vaginal mucus becomes so acid in some circumstances, as in cases of congestion, irritation, or inflammation of this organ, that the zoösperms appear to perish in a few seconds after being brought in contact with it. The same effect was also produced by the vaginal mucus secreted during pregnancy; this fluid exhibiting its acid properties in a much higher degree of intensity in the gravid than in the unoccupied state of the uterus." Hence we see that leucorrhœal discharges, by their fatal effect upon the spermatozoa, are most *frequent causes of sterility.*

The above are the most common causes of sterility. Among other occasional causes may be mentioned absence or any malformation of the sexual organs that prevents the vitalizing fluid of the male from reaching the ovule; as occlusion of the vagina or womb, imperfect vagina, inflammatory tumefaction at the internal os uteri, spasmodic closure at the cervix, ulceration of the cervix uteri, tumors and malignant degeneration of the uterus, and displacements, more especially flexion, of the womb, where it is bent upon itself at a right angle.

Entire absence of the vagina is a very rare malformation. There are, however, a few cases reported. There is, oftener, a narrowing of the vagina, and its calibre so diminished as to prevent the intromission of the male organ. This, however, does not imply either impotence or sterility. There are cases on record where the intromission was impossible, yet pregnancy occurred. Prof. *Beatty* reports a case: "A young girl, married at the age of sixteen, had the vagina so narrow, that a goose-quill could scarcely enter it. A young and vigorous husband had failed in all his attempts; and some of the faculty who were consulted declared copulation impracticable. Nevertheless, after clever

years, this woman became pregnant without any increase in the dimensions of the vagina. Her friends, of course, despaired of the possibility of delivery; but, about the fifth month of pregnancy, the vagina began to dilate, and at the full time it had acquired a size sufficient to permit the passage of the infant. In the celebrated Joan of Arc, the Maid of Orleans, according to the account of two physicians who were ordered to examine her, the vagina was found so contracted, that coition must have been impracticable."

Impotence should be distinguished from sterility. In the former, there is a malformation of the genital organs, that prevents an intercourse that would be followed by conception. In the latter, there is no bar to copulation; but conception does not take place. A female may be impotent, but not sterile, and sterile, but not impotent.

The vagina is sometimes found closed at its outer extremity, or orifice. This occurs sometimes in young children, from the want of proper ablutions: the parts become inflamed and excoriated, followed by adhesions. Cases are recorded of complete closure of the canal, with the exception of a small opening at the superior anterior part for the discharge of urine. The vagina is sometimes partially closed by a dense, resisting, thickened, and hypertrophied state of the hymen, that prevents the consummation of marriage; still, pregnancy *may* occur.

The uterus is sometimes absent, or it may be small, and in an undeveloped state. Sterility attends either of these defects. When the lower orifice, or both the upper orifices, of the uterus are closed, or where there is a closure of the oviducts, sterility will be the consequence so long as the impediments remain which prevent the contact of the male sexual element with the discharged ovule.

In women with an excess of plumpness, a want of sensibility is usually evinced. They are ordinarily cold, less passionate, and more unfruitful than those of moderate plumpness. "Women who are burdened with fat usually

do not conceive: there is an interesting relation between the activity of the ovaries and an absence of excessive adipose matter; and the relation is such, that the function of those bodies is, as a general rule, impaired in women who are remarkable for an excess of fatty material." — *Prof. Bedford.* We have already, under the head of SYMPTOMS, given our explanation why women burdened with fat are usually sterile. But there are other reasons: superabundance of fat and sterility may be, and, no doubt, are, often produced by errors in digestion, defective secretions, and morbid blood.

Another cause of sterility is similarity of temperament. It has long been observed that difference of temperament — where the irritable are joined to the calm, or the grave to the gay, the impassioned to the modest, or the impetuous to the gentle — is favorable to fecundity. Similitude in these respects is a frequent cause of sterility. "It is necessary," says *M. Virey*, "for a fruitful union, that there should be a certain harmony between the sexes, both moral and physical; and this is manifested in the sympathies of instinct, which, independently of beauty, make us prefer one person to another. The sexes secretly wish their union by a natural impulse which cannot be explained, and which, in a mixed society, renders us more attentive to one person than all the rest; and Nature inspires us better in this respect than reason.

"This harmony consists less in similitude of temperament, age, &c., than in diversity; for, if we remark, we observe a violent, bilious man prefers a mild, modest companion, while a passionate, impetuous woman finds most charms in a moderate, tranquil man: so that one may be tempered by the other, whether they be too cold or too hot."

Not an unfrequent cause of sterility is marriage between persons closely related. When offspring *are* the result of such a marriage, they are ordinarily either deaf, blind, idiotic, or otherwise infirm. *Zoroaster* permitted incest among

the Persians; and we are told that either sterility or diseased offspring was the consequence, the same as we see in breeding in and in among animals. Dr. *Pritchard* tells us, that "the degeneracy and even idiocy of some of the noble and royal families of Spain and Portugal, from marrying nieces and other near relations, is well known; and defective brains in all cases are observed."

Another cause of sterility is excessive voluptuousness; so, also, rigid chastity. Habitual indulgence in an inordinate use of the stimulus of sexual intercourse compromises the menstrual organs, debilitates the vital powers, and induces decay and loss of the enduring tone of the muscular and other solid tissues of the body. This is observed among licentious women: their excess in this particular destroys fecundity; but when driven to abstinence, either by seclusion or regular marriage, they become fruitful. We are told, that prostitutes, who had been infertile for years, have become mothers after transportation to Botany Bay, when they became restrained by marriage.

"Chastity," says *Acton*, "augments the vigor of the organs and amorous impulse, and is the surest means of fecundity. Hence those newly-married persons who have observed a strict chastity before their union procreate immediately, and their offspring is vigorous; while dissipated or aged persons seldom have children, and, if they have, the offspring seldom arrives at the adult age. For this reason, animals which copulate at certain times only, engender by one act. But a *rigid chastity enfeebles the passion of love, and may be the cause of infertility.*"

Moderation not only adds to the force of love, and renders enjoyment more intense, but is a surer means of fecundity, and generates offspring stronger in mind and body. Frenzies of love and excessive voluptuousness induce over-excitation of the nervous system, and intercourse is attended sometimes with a morbid passion or spasmodic convulsions, which are not only destructive to fecundity, but succeeded

by relaxation, loss of muscular power, and a general weakening of the powers of life.

Touching this matter, *Ryan* observes, "Repeated conjugal intimacy within a few hours is unprolific, and a mere animal gratification. Abstinence for one or more days, and tolerable good health, are necessary to most individuals for procreation of healthful offspring.

"According to most physiologists, morning is the best time for reproduction; that is, after the fatigues of the preceding day are dissipated by repose, and when the majority of healthful individuals possess most virility. *Galen* well observed, 'labor, food, drink, sleep, Venus' (*labor*, *cibus*, *potio*, *somnus*, *Venus*), an axiom in perfect accordance with modern physiology.

"As the hygienic precepts relative to the generative function are deeply interesting to most individuals, they may be slightly noticed.

"1. It should never be indulged in until there is a natural desire and vigorous impulse, and seldom, if ever, before adult age.

"2. It ought to be avoided whenever it produces more than temporary depression of spirits, or the least debility of the moral, intellectual, or physical states; also during intoxication, mania, and where there is venereal or any other disease of the sexual organs of either party.

"3. It ought to be used in moderation when the individual makes much mental or corporeal exertion, or during recovery from any severe disease, and when there is a state of debility, or when restorative aliment, &c., cannot be procured.

"4. It ought to be entirely abstained from during the presence of the menses, the child-bed evacuations, which continue for nine, twelve, or more days after delivery, and only used moderately and occasionally during pregnancy and suckling. It ought to be avoided in all painful diseases of the generative organs. It is also particularly injurious

immediately after taking food, and until digestion is completed, which is from two to three hours afterwards.

"There can be no rule laid down as to the proper exercise of this function, as this will depend on age, habit, occupation, situation, climate, season, aliment, and numerous other moral, physical, and external influences which are capable of modifying the function."

Self-abuse before marriage is not unfrequently not only the cause of aversion, nay, very frequently, of invincible repugnance, to cohabitation, but of sterility. No matter how much the husband may strive to demonstrate true affection, the same unconquerable frigidity and aversion to intercourse exists. "It appears," says Dr. *Acton*, "that at last nothing but the morbid excitement of the baneful practice can give any sexual gratification, and that the natural stimulus fails to excite any pleasure whatever. . . . So ruinous is the practice of solitary vice, both in the one and other sex, that it is carried on even in married life, where no excuse can be devised, and is actually preferred to the natural excitement. Venereal excesses engender satiety just as certainly as any other excesses, and satiety is followed by indifference and disgust. If the unnatural excesses of masturbation take place early in life, before the subjects who commit them arrive at maturity, it is not surprising that we meet with women whose possibility of sexual feeling, if it ever existed, is now prematurely worn out."

Disparity of years is another cause of sterility. It is a matter of pretty frequent observation that young women bear no children when united to old men, and that they often become mothers on future marriages with men younger. Where, from constitutional feebleness on the part of the husband, the conjugal act is but seldom, and, even then, imperfectly performed, which amounts to almost total privation of the natural sexual stimulus so far as the wife is concerned, it induces in the ovaries a state of

irritation or subacute inflammation, which almost precludes the possibility of impregnation. If, however, pregnancy should occur, the offspring are ordinarily weak, puny, and scrofulous. But the consequences of this class of ill-sorted marriages stop not here: they are usually followed by great immorality and the usual results, — domestic misery, unhappiness, and jealousy. The sexual organs are incentives: they give appetite, which, like hunger, must be appeased, or Nature revolts. Constitutional feebleness is inadequate to the task, and, in consequence, the wife is too often led to debauchery, and the husband, utterly powerless of remedying the evil, to all the excesses of jealousy and domestic unhappiness. These marriages ordinarily take place on account of pecuniary or other worldly considerations. "The laws of ancient nations on late marriages merit notice. In Sparta, when a woman brought a fortune to an aged and impotent man, he was compelled to permit her to choose an *adjunct* to his family. In Italy, certain ladies stipulate for their *cecisbeo* and *cavelire servante*, and in Spain, for *cortegos*, or individuals with similar privileges."

Disproportion of the sexual organs, and precipitation and impetuosity in the consummation of marriage, are other causes of sterility. "When there is great disproportion between the reproductive organs," says Dr. *Ryan*, "the generative function cannot be performed. Thus, excessive size, thickness, or length of the virile member may render sexual intimacy excessively painful, or indeed impossible for some time, with very young persons, or those of small stature; and cases have fallen under my own observation in which marriage could not be consummated. *Albinus* records a case of divorce against a husband, *ob penem enormen*; and *Plater* describes a similar one. These, however, are rarely causes of impotence, or solid grounds for divorce, because a cure can be effected in most cases.

"I have also been repeatedly assured that sexual approach had been productive of pain for two or three months

after marriage. Infecundity was the result, in some cases, and sometimes inflammation of the womb, which was succeeded by painful menstruation, barrenness, and, finally, by cancer, or some of the many other ulcerations of the internal or external genitals."

A few remarks by the same author, touching the consummation of marriage, may not be out of place at this point. He says, "The consummation of marriage ought to be effected with gentleness and moderation, and not with unrestrained impetuosity, as among brute animals; for, if it is accomplished with violence, more or less severe pain, laceration, effusion of blood, with inflammation of the external and internal genital organs, will be frequently induced. . . . Every experienced medical practitioner is aware, that, in cases of female violation, more or less contusion, laceration, hemorrhage, and inflammation are produced, more especially in cases of very young persons, and where there is much disproportion between the age and development of the individuals.

"When most of these diseases are induced, they are aggravated by the frequent repetition of the cause which excited them: it occasions excruciating pains, and generally produces sterility and bad health. I might narrate many cases of this kind about which I have been consulted. . . .

"There is nothing more certain than that precipitation and impetuosity in the consummation of marriage often causes, in the very young, or aged individuals, exquisite pain, from contusion, laceration, &c.; and these evils result more from sensual passion than from the legitimate object, — the propagation of the species. In further support of this opinion, I may add, that the Jews, and many ancients, maintained that the consummation of marriage ought to be characterized by the effusion of blood; and this is generally the case: but there are many exceptions, as when leucorrhœa or other mucous discharges are present, which relax the external genitals, and destroy the hymen. In

these last cases, there may be no effusion of blood on the consummation of marriage, though the individual is a virgin, — a fact well known to every scientific and practical obstetrician and medical practitioner.

"It is also well known that pregnancy has occurred, and the hymen perfect. Again: a woman may be delivered, and such cohesion occur soon after as to totally impede sexual commerce; and, in certain cases, there will be copious effusion of blood. In fine, the most respectable medical authors had been unable to determine whether women who had been depraved twenty or more years were not virgins, as the presence or the absence of the hymen is no real proof of virginity."

Undue exercise of the mental organs is another fruitful source of sterility. The brain, from its severe and continued application, absorbing the greater portion of the nerve-power, deprives the menstrual organs of their proper share; and their natural energy and healthfulness becomes diminished.

Women of irritable temperament are usually sterile; and those, too, who marry late in life are ordinarily unfruitful, more especially if the application of the stimulus of sexual intercourse causes over-excitation of the menstrual organs, which have become somewhat accustomed to the deprivation of their natural stimulus.

Climate has a governing influence over fecundity. Females of cold climates are more prolific than those of hot. In Iceland, they have from fifteen to twenty children; in Germany, from six to eight; in France, from four to five; while in Spain two or three is the average number. As a rule, fecundity diminishes in proportion as we advance from the poles to the equator. England, Denmark, and Russia have an excessive population, while the Turks, Asiatics, and Peruvians, who inhabit a delightful climate, and are allowed a plurality of wives, have their empires thinly populated. "Man multiplies himself," says *M. Virey*, "in the United

States of America, while he perishes without posterity in the neighboring possessions of Spain; for the first is laborious without luxury, the second enjoys ostentation and idleness; the one is free, whilst the other is subjected to an arbitrary yoke."

Fecundity is also greater among the poorer classes than among the affluent. Among the latter are the fewest children, while among the former they are numerous.

The seasons have great influence on fecundity. "*Hippocrates* was of the opinion that spring was the season most favorable to conception. *Pliny* termed it the genital season (*geniale tempus*), when all Nature possessed ardor, and became pregnant of new creations. At this season, all animals and vegetables reproduce; animated nature is exhilarated; the purity of the air; the freshness of aliments; the infancy of all Nature, which renews pleasure; the odor of flowers; the melodious singing of birds; the voluptuous sensations felt in every organ, — all proclaim that this is the season of reproduction. Animals approach each other, the germination of seeds commences, shrubs and trees put forth their blossoms, and there is a universal effort to reproduce in all bodies endowed with life. . . . Truly has the poet sung, 'In the spring, the lands swell, and demand the reproductive seeds. Then the omnipotent father Æther descends in fructifying showers on the bosom of his joyous spouse (the earth), and great himself, mingling with her body, nourishes all her offspring. Then the shrubs resound with tuneful birds, and animals reproduce at certain times.'" — *Ryan.* The philosophical and eloquent *Virey* thus discourses on the season of spring: "When the vernal sun sheds the spirit of heat and life on the atmosphere, the earth ferments, and covers itself with the varied productions; the tree shoots forth its buds; the plant expands its flowers; the benumbed insect revives and seeks its kind; the bird calls its species on the solitary branch, and exhales its amorous delirium in its songs; the quadruped, whose eye

sparkles its ardor, darts his glances towards his companion, and thrills with love: but winter, crowned with hoar-frost, brings sadness and the stillness of death upon the earth. In those climates in which the fecundating heat of the atmosphere never ceases, the flower replaces the fruit which ripens and falls, the nestlings of birds succeed each other, generations call forth new generations. The year is one perpetual succession of life; all beings do not appear to exist in these happy contrarieties, but to perpetuate in the bosom of pleasure. Life passes now more rapidly, because it is most consumed."

That spring is most favorable to conception, and sexual intercourse more prolific in the months of March, April, and May, and that a greater number of infants are born in the months of December, January, February, and March than at any other time of the year, we have multiplied experience to prove. "*M. Villermé*," says *Acton*, "has found from criminal statistics, that charges of rape generally occur in the spring and summer months. These facts, if they be facts, seem almost to point to the conclusion that the human male is subject to a kind of rutting season, similar to that of the lower animals."

Aliment also influences fecundity. Abundance increases reproduction. In years of plenty and fertility, man and beasts and insects multiply and fill the earth; while in seasons of calamity reproduction is limited.

From the foregoing, it will be seen that sterility very frequently points to the menstrual organs as the great source of the infirmity. If, however, nothing else than sterility particularly manifests itself, the infirmity receives, ordinarily, little or no attention. If a woman be sterile, it is regarded as a misfortune; and there the matter rests. Treatment, ordinarily, is not thought of, and for the reason that medical men generally regard it more as an unfortunate condition than as a matter demanding remedial attention; and, consequently, its causes and the true indications of treatment are alike unknown to too many.

Sterility is oftener curable than is generally supposed. A judicious treatment directed towards the menstrual organs will oftentimes effect a cure when all hope is nearly or totally extinct; and Dr. *Tilt* very truly observes, that "nothing tends so much to the honor of the profession as the ability not only to preserve the life of individuals, but to place them in a position to perpetuate their families."

As regards the period of the greatest aptitude for conception, much difference of opinion exists. Some maintain that the aptitude is greater during menstruation; "that at this time there is an increase of venereal ardor, and that the capability of impregnation is at this time at its acme: but this is not in accordance with exact observation."—*Dunglison.* Others maintain that the aptitude is greater just before and after the menstrual period. This is undoubtedly true. It is equally true that conception *may* take place either during menstruation, or immediately before or after it, or at any time during the interval between the periods. *M. Pouchet* asserts, that aptitude scarcely exists at the middle of the interval between the menstrual periods; but *M. Coste* and others offer numerous facts to show that fecundation occurs in the inter-menstrual periods. As has been observed, impregnation may take place at any time; but the *greatest aptitude* is undoubtedly just before and for ten or twelve days after menstruation. After this time, and up to two or three days before the next menstrual period, the aptitude is very much lessened.

As regards some prevailing notions, Prof. *Bedford* observes, "A general opinion has prevailed, that pleasurable excitement during intercourse is essential to a successful fecundation. This is an error; for it is well known that women in whom intercourse is not only without the slightest voluptuous sensation, but even repugnant, become readily impregnated. The opinion that pleasure is necessary on the part of the female has more than once been cited in

courts of justice as proofs against the purity of a woman on whose person a rape, followed by impregnation, has been committed. This latter circumstance, however, is no proof at all, either in favor of the consent, or adverse to the chastity, of the female."

Those who entertain the opposite opinion would reply to this, that impregnation occurred because there were periods of reconciliation. *Walker* says, "Pleasure, or, at all events, the absence of antipathy in the mental nervous system, seems necessary to the formation of a new being; and at least unity or simultaneous concurrence in the vital nervous system is evidently essential. When, on the contrary, there is too great a difference of character, and a married pair cannot enter even into momentary harmony, barrenness must be the result.

"We are, indeed, assured that there have been cases in which antipathy, disgust, hatred, and even anger, have not proved positive causes of sterility. But, in these cases, there were periods of reconciliation.

"Sometimes a difference, an unconquerable incompatibility of certain points of character, may render any kind of union impossible between two persons, who, when afterwards paired with other mates, have large families, or who obtain these when age or custom has reduced them to relative harmony; and hence couples that have been childless for fifteen or twenty years give birth to children at a more advanced age.

"Upon the whole, it appears, as has been already said, that the results of marriages founded solely on interest, and accompanied either by indifference or antipathy, are domestic misery, sterility, or weak and unhealthy children, and numerous crimes."

As regards the likeness a child may bear from the influence of the maternal imagination during a fecundating copulation, there is something strange and inexplicable. Where the female is twice married, and bears children to

the second husband, they frequently bear unmistakable resemblance to the first husband. Touching this matter, Prof. *Dunglison* says, "It has been affirmed, that the human female, when twice married, occasionally bears children to the second husband which resemble the first in bodily structure and mental powers. The mode in which the influence is exerted in this and similar cases is unfathomable, and the fact itself, although indisputable, astounding. Sir *Edward Home* thinks that it is one of the strongest proofs of the effect of the mind of the mother upon her young that has ever been recorded. 'Dr. *Harvey* has given two cases in support of the view; one of them, that of a woman who was twice married, and had issue by both husbands. The children of the first marriage were five in number; of the second, three. One of these three, a daughter, bears an unmistakable resemblance to her mother's first husband; and, what makes the likeness the more striking, there was the most marked difference between the two husbands in their features and general appearance.'

"It would also seem indisputable, from proofs adduced by authors, that the offspring are sometimes, in some unaccountable manner, impressed with the likeness of the *first* gallant, no matter how many others the female may have regarded with particular complacency. These phenomena have been repeatedly observed in animals, and in some instances where no sexual intercourse had existed." It is possible this may throw a ray of light upon the heretofore mooted question, why the child sometimes bears so striking a resemblance to a next-door neighbor; that is, providing there be floating in the mind no suspicion that the mother might deem it somewhat inexpedient for her to quarrel with her confidential maid.

"Sterility in the female may be relative only to one and not to another male. It is said that examinations among the oldest aborigines of every country render it evident, 'that their longevity has not been abridged; that the rate

of mortality has not increased, but that the power of continuing or procreating the species appears to have been curtailed. On further inquiry, this curtailment of power was not found to originate with the male, so far, at least, as could be observed; but some startling facts disclosed in the course of the investigation seem to confine it to the female.' Of these, the most remarkable, according to Count *Strzelecke*, is, that, whenever a union takes place between an aboriginal female and a European male, 'the native female is found to lose the power of conception on a renewal of intercourse with the male of her own race, retaining only that of procreating with the white man.' Hundreds of instances," he adds, "of this extraordinary fact are on record in the writer's memoranda, all tending to prove that sterility of female, being relative only to one, and not to another male, and recurring invariably, under the same circumstances, amongst the Hurons, Seminoles, Red Indians, Yakies, Mendoza Indians, Aurocos, South-Sea Islanders, and natives of New Zealand, New South Wales, and Van Diemen's Land, is not accidental, but follows laws as cogent, though as mysterious, as the rest of those connected with generation.

"These statements are worthy of attention; but they require fresh investigation before they can be regarded as established, especially as they certainly do not apply to the negro; repeated opportunities occurring in this country and elsewhere to show that the impregnation of a colored woman by a white man does not deprive her of the power of subsequent procreation with an individual of her own race." — *Dunglison.*

As regards the age at which females are most prolific, it would appear, from the testimony given, that more women bear children between the ages of twenty-six and thirty years than at any other period.

As regards the circumstances which give rise to the sex of the offspring, nothing has been positively demonstrated

on the subject. It is in no respect influenced by the desire of the parents. It has been attempted to show that corporeal vigor of the parents has much to do with the future sex of their children. Prof. *Dunglison* states, that "*M. Giron* instituted a series of experiments on different animals, but especially on sheep, to discover whether a greater number of male or female lambs may not be produced at the will of the agriculturist. . . . The result would seem to show that the younger rams begat females in greater proportion; and the older, males. *M. Giron* asserts, that females commonly predominate amongst animals that live in a state of 'polygamy;' and it is affirmed that the same fact has been observed in Turkey and Persia in the human species: but statistical data are wanting. These and other facts have seemed, however, to show, that, in the act of generation, it is, as a general rule, the stronger individual that regulates the sex of the progeny. *M. Moreau* has arrived at this conclusion as the result of long observation. He is of the opinion, that, to a certain extent, a boy or girl may be begotten at will by strengthening or weakening the father or mother previous to the act of generation; and he states, that, by acting on this rule, he has seen, in numerous instances, his advice followed by the desired results.

"From the researches of *Hofacker* and *Sadler*, it would appear, that, as a general rule, when the mother is older than the father, fewer boys are born than girls, and the same is observed where they are of equal age; but the greater the excess of age on the part of the father, the greater will be the ratio of boys. The fact deduced from the observations of these gentlemen has been characterized by a recent writer as 'one of the most remarkable contributions that have yet been made by statistics to physiology.'"

From the above, it would seem that the relative vigor of the parents determines the sex of the child. If the male be of superior strength, and robust, and the female the op-

posite, male offspring will be in excess. So, also, if the father be the mother's senior. But in countries where polygamy is tolerated, and the vital powers of the male become weakened and exhausted from being expended on several women, females predominate.

BRARY

XII.

ABORTION.

WE have already seen, that when the ovule has become fully developed, and extricated from the ovary, and received into and carried forward by the oviducts into the cavity of the uterus, and there fecundated by contact with the male sexual element, then, if a mesenteric attachment is formed between it and the living surface of the mother, pregnancy exists.

We have also seen, that the uterus is intimately connected with the ovaries, and that, while the vital processes of these organs are becoming greatly enhanced through ovulation, and the nerves are in a highly exalted condition, a stimulus or influence must necessarily be transmitted from the ovary to the uterus, which must induce in that organ certain changes and modifications. We find that its substance is redder, softer, less compact, more succulent, more vascular, and heavier than usual. We find that its lining membrane is the seat of very considerable tumefaction and thickening, and, exhaling a coagulable material, becomes covered with a "beautiful flocculent exudation," which forms the *membrana decidua*, which, according to *M. Pouchet*, is thrown off from the tenth to the fifteenth day afterwards, if conception does not occur. He is of the opinion, that the decidua is produced by the process of ovulation, and that it is a pseudo-membrane "secreted between the surface of the mucous membrane and the epithelium."

M. Coste, in speaking of the changes that occur in the

uterus through the process of ovulation, says, "The only modification of which the uterus becomes the seat consists in the turgescence or erethism of its tissue, and, more especially, in a considerable thickening of the mucous membrane, — a thickening which results especially from congestion of the blood-vessels, and an extreme development of the glands that enter into its composition, and, in certain subjects, plait them into more or less numerous convolutions." The openings at the Fallopian tubes, notwithstanding the exudation, and the folds in the uterine membrane, are always free and permeable, and permit the ovule to pass into the cavity of the uterus, where, becoming entangled among the plaits, or folds, of the convoluted mucous membrane, its escape is arrested. The opening at the cervix is also free and permeable, permitting the passage of the male sexual element into the cavity of the uterus, where, coming in contact with the ovule, fecundation takes place. The ovule, after becoming arrested among the folds of the uterine membrane, and partially embedded in its flocculent exudation (which afterwards forms the *membrana decidua*), and fecundated, forms at that point an attachment with the uterus; through which attachment it draws a plentiful supply of blood from the mother for its nourishment, and grows apace. The *membrana decidua*, then growing up around the ovule, completely envelops it, forming the *decidua reflexa*, which is in reality but a part of the true *decidua*.

The womb itself now begins to grow; and, at the end of nine months, the little pear-shaped body has, without any thinning of its walls, become a huge globular mass upwards of a foot long, and eight or nine inches broad, within which lies the infant floating in a liquid whose soft and yielding volume protects its tender limbs, as well as its mother, from injury. At the end of pregnancy, this large, hollow muscle, called the womb, begins spontaneously to contract and expel its contents. The vagina and vulva commence at

the same time to relax, so as to permit the passage of the child through them. The contractions of the womb are at first slow and feeble, occurring at irregular intervals of from ten to thirty minutes. As labor progresses, however, they increase in power and frequency until the child is expelled. After its expulsion, the *placenta*, the medium through which the child received its nourishment from the mother, very soon follows; and the womb contracts into a hard ball, and, in a few days, returns almost completely to its original size.

The duration of pregnancy in the human female is not absolutely fixed, but is limited, ordinarily, at about two hundred and eighty days from the fecundation of the ovule. It may, however, in particular cases, be protracted much beyond this. The limit to which the protraction may *possibly* extend cannot be assigned. There are cases on record where it has been protracted to two hundred and ninety-eight days, or eighteen days beyond what has been deemed to be the average duration of pregnancy; and this is said to be the longest period of any recorded case that can be relied on. "The University of Heidelberg allowed the legitimacy of a child born at the expiration of thirteen months from the date of the last connubial intercourse; and a case was decided by the Supreme Court of Friesland, by which a child was admitted to the succession, although it was not born till three hundred and thirty-three days from the husband's death, or only a few days short of twelve lunar months. These are cases of judicial philanthropy, and perhaps, we might add, credulity. Still, although extremely improbable, we cannot say that they are impossible. This much, however, is clear, — that real excess over two hundred and eighty days is by no means frequent; and we think, in accordance with the civil code now in force in France, that the legitimacy of an infant born three hundred days after dissolution of marriage may be contested, although we are by no means disposed to

affirm, that, if the character of the woman be irreproachable, the decision should be on the side of illegitimacy. . . . In the year 1844, a case of gestation protracted to three hundred and seventeen days was admitted in Cambria County, Pennsylvania; and in 1846, another of three hundred and thirteen days at the Lancaster Quarter Session. The charge of the presiding judge, Ellis Lewis, in the latter case, was sound and satisfactory. While he expressed the belief that protracted gestation for the period of three hundred and thirteen days is *unusual* and *improbable*, he regarded it as not *impossible*, but properly added, 'that the evidence to establish the existence of such a departure from the usual period should be clear and free from doubt.'" —*Dunglison.*

In computing the time, Prof. *Meigs* observes, that although the full term of pregnancy extends to two hundred and eighty days from the fecundation of the ovule, yet "it is more prudent, in making the calculation for the term, to begin the computation from the last catamenial show: *two hundred and eighty days from this date the woman ought to expel the child.* It is in this manner that I have made the computation for my patients for many years past, and, as yet, have no reason for changing my method or habit."

The earliest period at which the fœtus is capable of an independent existence is *six months.* The period generally fixed, however, is seven months. "Much evidence was brought forward in a case in Scotland to show that it is possible for a child that was born at the conclusion of twenty-four weeks of utero-gestation to live some months. In that case, the presbytery decided in favor of the legitimacy of one born alive within twenty-five weeks after marriage."

When delivery takes place prior to the capability of the child carrying on an independent existence, or before the sixth month, *abortion*, or *miscarriage*, is said to have occurred. If the child is delivered after this, and before the full period, it is termed *premature labor.*

As to the causes which give rise to the *expulsion of the fœtus*, we adopt the views of *M. Berthold*, Dr. *Tyler Smith*, and *M. Leroy;* viz., "that parturition, like menstruation, is an *ovarian* phenomenon; that the muscular excitability of the uterus at the full period is dependent upon the ovarian excitement; and that the supervention of the expulsive contraction on the two hundred and eightieth day, or thereabouts, after conception, is a reflex phenomenon, of which the eleventh periodical access of ovarian excitement, corresponding to the eleventh menstrual period, is the exciting cause."

Adopting these views, and of the governing influence of the ovaries over the womb, and bearing in mind how prone are the ovaries, from their structure and their periodical turgescence, to take on inflammatory action, transmitting a morbid instead of a physiological stimulus to the uterus, we are prepared to acknowledge the potency of at least one of the causes (and we believe it to be the chief one) that destroys the power of the womb to retain the fœtus until it is in a condition to be brought forth alive, and, *especially*, when we bear in mind of how trifling a character sometimes are some of the *reputed* exciting causes of abortion, when, at other times, falls, blows, over-exertion, fatigue, starvation, grief, external violence, and pernicious practices pursued with criminal intentions, and, too, in women of the most delicate constitution, fail in any way to interfere with the well-being of the fœtus, but *more especially* when we bear in mind that abortions coincide with woman's catamenial period; that, whenever abortion *does* occur, it is *ordinarily* at the period of the usual menstruation; at the very time when these organs have been accustomed to take on their periodical turgescence and congestion; and at the very time, of all others, when, if in a state of disease, the ovaries would be more likely to transmit an exaggerated influence or stimulus inducing expulsive contractions of the womb. Dr. *C. Locock* of London very truly observes, that

"there is a tendency of the circulation towards the uterus every month, even during pregnancy; and few women are found who do not experience the symptoms occasioned by it for the first month or two: hence it is that miscarriages are so apt to occur at those periods at which menstruation would have appeared, had not the process been interrupted by pregnancy."

Abortion occurs, ordinarily, during the early months of pregnancy, and, most generally, in those of a nervous and irritable constitution. We believe disease of the ovaries to be one of the most frequent causes of abortion and premature labor, if, indeed, it be not the most frequent. The diseased ovary transmits to the womb a morbid stimulus, whereby contractions of its muscular tissue are induced; or the morbid stimulus, having been transmitted to the womb, causes an impetus of the uterine circulation; and an unusual afflux of blood to the lining membrane forces the placenta, or more or less of it, from its connection with the uterus by an extravasation of blood between these two surfaces. If considerable of the placenta becomes detached, from this or any other cause, the fœtus dies, and, after a longer or shorter time, is expelled by the muscular contractions of the womb. Those of a nervous and irritable constitution, and especially those in whom the menstrual stimulus is generally vigorous, and the flow copious, are extremely liable to miscarriage from this extravasation of blood. The embryo is ordinarily expelled very shortly after its death; but sometimes it is retained for weeks: and cases have been reported where it has been retained for months, passing through various stages of decomposition.

Another cause of abortion is the toxicological results of non-elimination of the effete matters of the blood, causing irritation of the brain, medulla oblongata, and spinal marrow, and the transmission of a morbid stimulus to the muscular tissue of the womb, inducing spasmodic contraction

of that organ, and expulsion of its contents. It is readily to be perceived how the gravid uterus, pressing upon the thoracic viscera, upon the hepatic vessels, and upon the renal veins, may cause deficient oxygenation of the blood, jaundice, constipation, albuminuria, and retention of urine; and we apprehend that the nausea and vomiting which so generally occurs in connection with pregnancy consists as frequently in an irritation of the gastro-intestinal mucous membrane by morbid blood (the tendency being to work off the poison by that secreting surface) as from "sympathetic" disturbance. The same cause may also operate by causing the death of the fœtus; the poisonous blood acting upon and destroying its life through the medium of the circulation, in the same manner precisely as poisonous drugs when taken with criminal intention.

Another, and, it may be said, not an unfrequent cause of abortion is *congenital syphilis;* indeed, so almost never failing as a cause is this contamination, that repeated abortions go very far in establishing its presence in suspected cases in married life. When either parent is affected, premature expulsion of the fœtus is imminent, more so, perhaps, when the mother is the party contaminated. When both parents are affected, abortion is almost inevitable, and occurs, ordinarily, about the sixth month. The parents may not present any decided symptoms of ill health, or any syphilitic manifestations: the disease may have remained latent for years, and both enjoying apparently the best of health, but, if the diathesis exists, it is sufficient to contaminate the fœtus. Syphilis affecting the embryo may be contracted by the mother either before or after conception; but, to be affected through the father, it must have been contracted by him previous to conception. When the fœtus becomes affected through the father, the mother is not necessarily contaminated; yet the mother *may* become contaminated through the fœtus as well as the fœtus through the mother.

Unfortunately, the initiatory symptoms and distinguishing

characteristics of *true* syphilis have been imperfectly understood, especially by those out of the profession. They have been taught to believe, that, if syphilis does not manifest itself after a certain time succeeding a suspicious connection, by the appearance of one or more well-marked and prominent chancres of greater or less magnitude, followed or not, according to circumstances, by swollen groins, buboes, &c., they have escaped infection. They do not understand, that, in the great majority of cases of true syphilis, the initiatory symptoms are very far from being of a character likely to arrest the attention; that the primary sore or *true* chancre is oftener than otherwise so insignificant, that, in nine cases out of ten, it will be regarded as a mere abrasion, which very frequently passes away (i.e., the abrasion) without any treatment at all. Neither do they understand that the large primary and multiple sores with over-hanging and indurated edges, which are succeeded by a swollen and suppurating groin, and which they have been accustomed to regard as syphilis, are *not* true syphilis, *nor followed by any constitutional effects*. The primary sore in *true* syphilis is scarcely ever multiple, or of much magnitude, or followed by a suppurating bubo, and very generally vanishes without treatment, but to be followed in after-days by those constitutional disturbances which jeopardize life. Because no well-marked and prominent sore manifests itself after a suspicious connection, the patient rests in security. If an abrasion appears, its disappearance quiets all apprehension. If constitutional symptoms afterwards appear, he misleads his medical adviser by saying that he has had no primary sores; and a treatment is instituted for some other infirmity: the treatment may, however, stay the true disease, but without eradicating it from the system, or preventing its contaminating an unoffending progeny. Deceived as to the initiatory symptoms of a disease which has long lain dormant, marriage is contracted, whose natural consequences prove but the perpetuation of suffer-

ing in other and innocent creatures. There are thousands of families suffering under this infirmity, and its true character little dreamed of. The parents *seem* healthy; but their children, if brought forth alive, are poor, weak, and puny, emaciated, yellow, and unhealthy; and the medical adviser, as if not to derogate from the custom which has become too general with regard to such cases, pronounces it mesenteric disease, or *scrofula*, &c., and adopts a course of treatment, which, if suitable for the child, goes no farther. The parents are left undisturbed in their infirmity to transmit to a future progeny a subtle, terrible poison, which will, in spite of remedies, remain fixed in all its awful might, to blight, wither, and destroy.

If pregnancy occurs during lactation, abortion not unfrequently takes place as the result of irritation transmitted from the mammary glands to the uterus, and produced by tractions at the nipple by the child in nursing: hence the necessity of weaning the child as soon as pregnancy is known to exist.

Retroversion and prolapsus of the uterus, ulceration and inflammation of its neck, are occasional causes of premature expulsion of the ovum.

Habit is spoken of by some writers (Prof. *Bedford* and others) as a cause of abortion, from the fact, that, when it occurs once, the female is exceedingly prone to miscarry at about the same period of gestation as that in which the previous miscarriage took place.

Another cause of abortion, especially in the early months of pregnancy, is sexual intercourse, and, more particularly, if the amative excitement on the part of the female be strong, or if the womb be low down, and the male violent in his manifestations.

All chronic diseases of the uterus and the oviducts, polypi in the cavity of the womb, tumors in its walls, adhesions between the uterus and the surrounding tissues, impeding its growth and expansion, are occasional causes of abortion.

Among other causes may be mentioned sudden mental perturbation, sudden violent muscular motions, as in lifting heavy weights, running, dancing, &c., falls, blows, drastic purgatives, emetics, &c. To these, as exciting causes, is the abortion generally referred by many physicians; while general debility, excessive plethora, and irritability of the nervous system, are regarded as the predisposing causes. Whatever may be the cause, the expulsive force is the same: the contraction of the uterus destroys the attachment which exists between the ovum and the living surface of the mother, the embryo dies, and is expelled.

THE END.



NATIONAL LIBRARY OF MEDICINE
NLM 00554729 3